

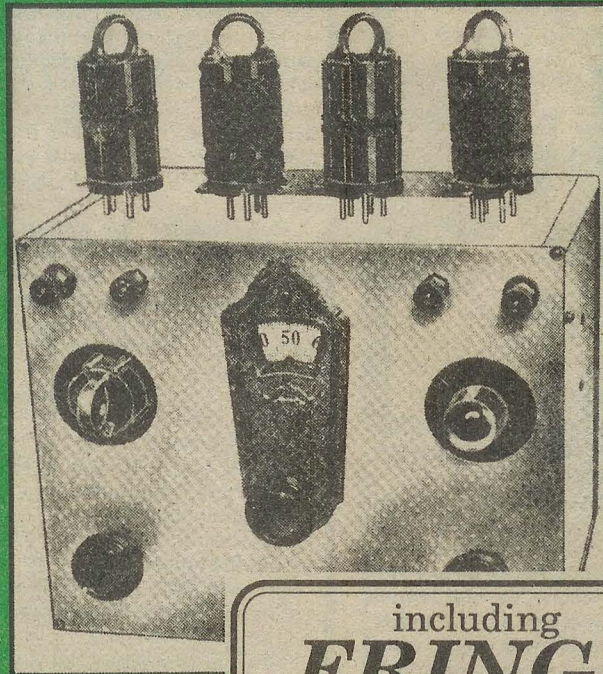
Lindsay's

No. 502 — Spring 1989 — \$1.00

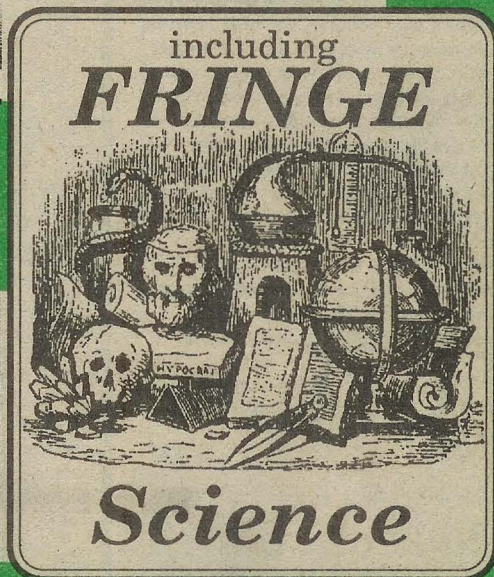
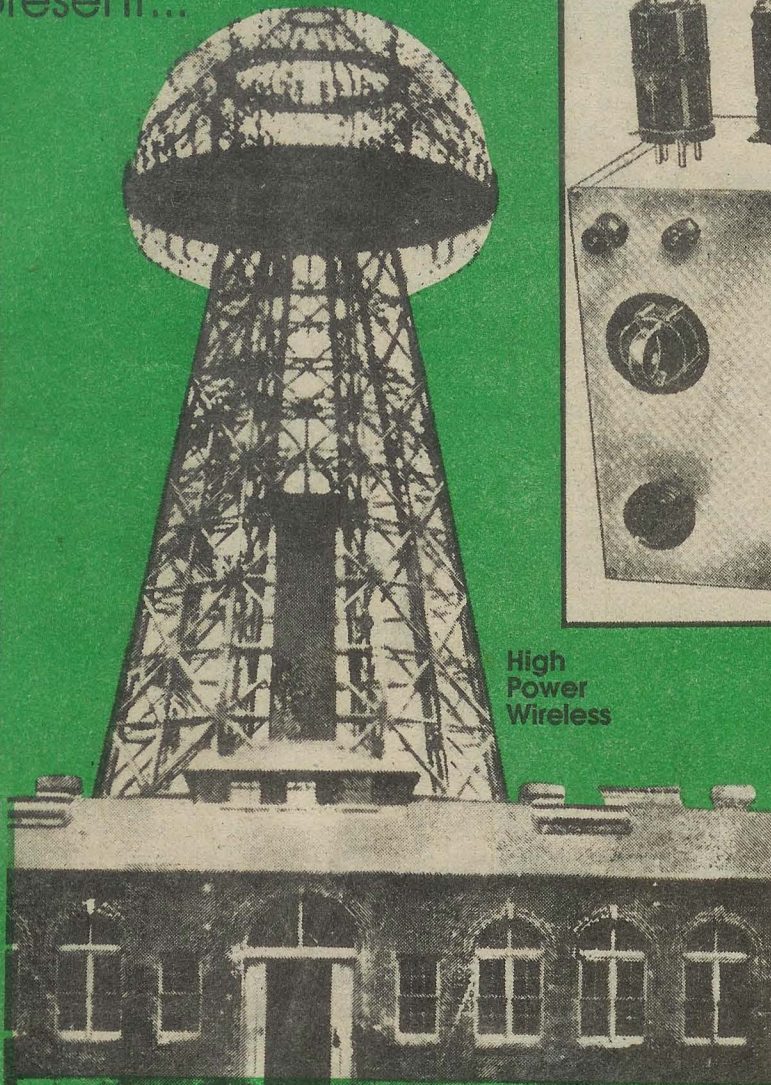
# ELECTRICAL BOOKS

Unusual, high quality  
electrical and  
electronics books  
from the past and  
present...

How to Build & Operate Short Wave Receivers



High  
Power  
Wireless



## LINDSAY PUBLICATIONS INC

PO Box 12, Bradley IL 60915-0012 • 815/468-3668

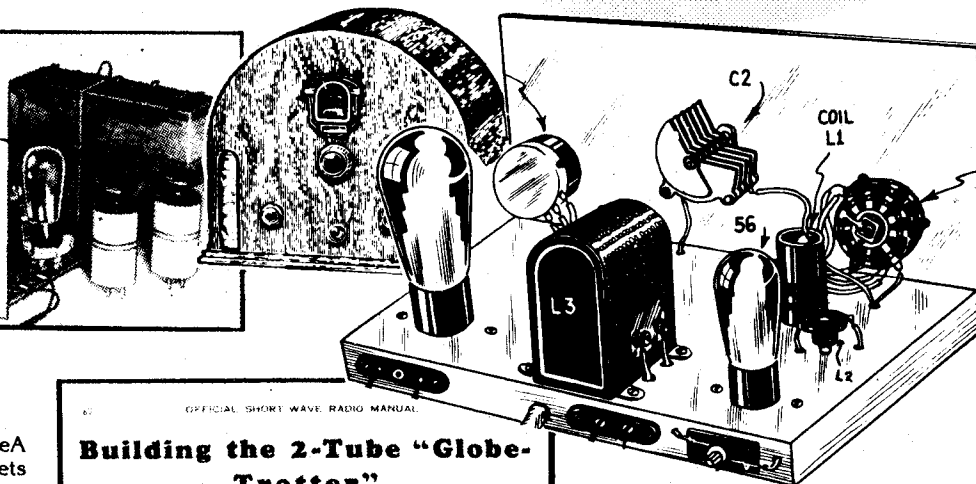




Official 1934

# SHORTWAVE Radio Manual

Build Simple  
High Performance  
Shortwave  
Radios!



Official 1934  
SHORT WAVE RADIO MANUAL  
edited by Hugo Gernsback & H W Secor  
new chapter by T. J. Lindsay

Build simple, high-performance old timeA shortwaver radios! You can. All of the secrets are here: the circuit diagrams, parts layout, coil specifications, construction details, operation hints, and much more.

Back in the 20's and 30's the only low-cost way of listening in on the newly discovered and fascinating shortwave radio frequencies was to build a set. Shortwave construction magazines flourished, even during the depression.

This is a compilation of construction articles from "Short Wave Craft" magazine. It's wall-to-wall how-to.

At the rear of the book are circuit diagrams, photographs, and design secrets of all short-wave receivers being manufactured in 1934 including some of the most famous: SW-58, the SW-5 "Thrill Box", the deForest KR-1, the Hammurland "Comet Pro", and many more.

You'll find that all the circuits use tubes since transistors hadn't yet been invented. And you'll also find that the original tubes listed are usually difficult to find today. using junk box parts, one of my wife's hair curlers and alligator clips. When I hooked it up to an antenna strung across the basement ceiling and attached a 9 volt battery, signals started popping in like crazy. In a couple of minutes I heard an urgent message from a ship's captain off Seattle asking for a navigator to help him through shallow water. Not bad, considering I live near Chicago!

These small regenerative receivers are extremely simple, but do they ever perform! I've built dozens of them, and they never fail to amaze me! Even master machinist, Dave Gingery has built these sets.

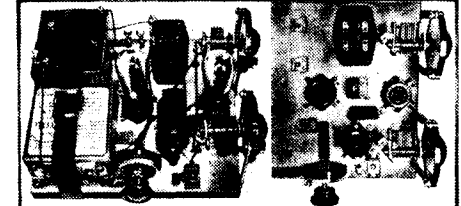
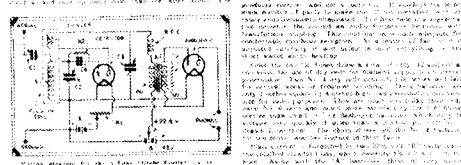
This is the nuts for the experimenter, the survivalist who is concerned about basic communication, shortwave listeners, ham radio operators who collect old receivers, and just about anyone interested in old-time radio.

## Building the 2-Tube "Globe-Trotter"

The Globe Trotter is the first of the "Globe Trotter" line of receivers designed by H. W. Secor for the "Short Wave Craft" magazine. It is the first of the "Globe Trotter" line of receivers designed by H. W. Secor for the "Short Wave Craft" magazine.

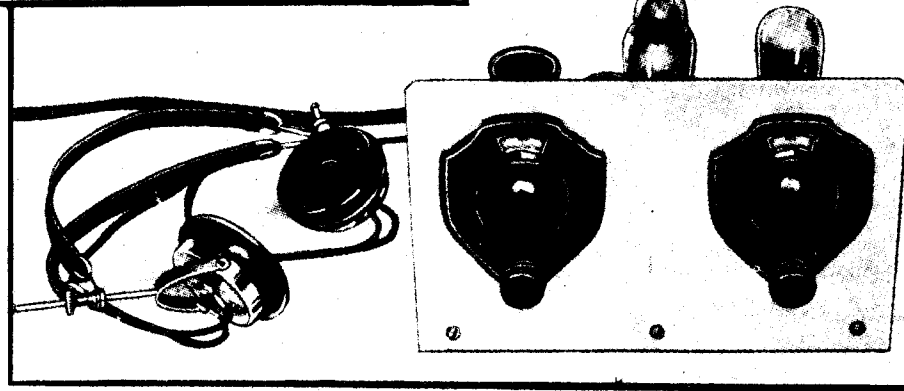
By ROBERT HERTZBERG, W2JJJ

This receiver is designed to be built in a portable form. It is the first of the "Globe Trotter" line of receivers designed by H. W. Secor for the "Short Wave Craft" magazine.



Great  
old-time  
circuits  
revealed!

Great book. Best old-time radio book I've ever seen. And I look at every one I can get my hands on. Consider it carefully. Even if you never build one of these radios, you'll get hours of enjoyable reading out of this book. Top rate. Order a copy. 8 1/2 x 11 paperback 260 pages Cat. no. 4643 \$14.95



# COLLECT ANTIQUE RADIOS!

## Restoration & Price Guide

### ANTIQUÉ RADIOS

#### Restoration & Price Guide

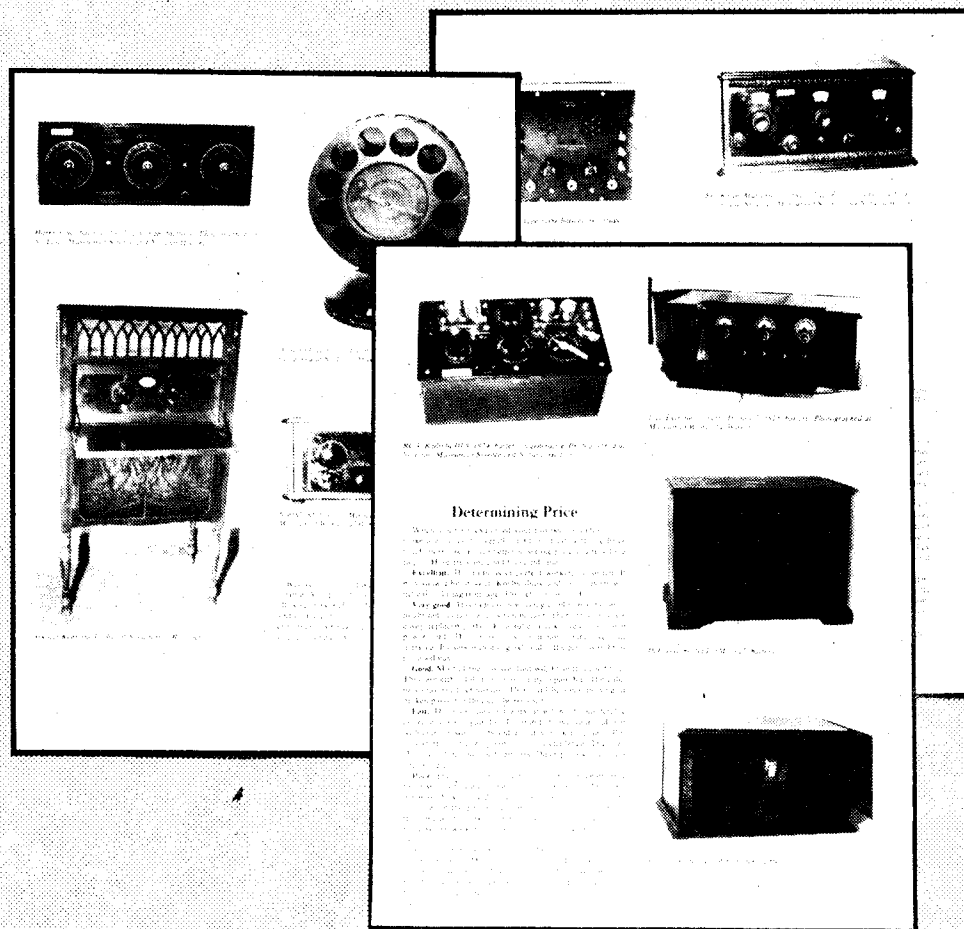
by David & Betty Johnson

People are finally discovering old radios, whether they be the early TRF models that ran off auto batteries, later floor models with shortwave bands, or the new plastic case radios of the 1950's. Interesting is booming.

If you've got the bug to collect old radios, consider this helpful book carefully. Chapters include: is that antique radio right for you?, how does a radio work?, cleaning it inside and out, examining it, trying out your radio, troubleshooting and repairing, fine-tuning your radio, cabinet repair and refinishing, receiver theory, equipment and supplies, tube information, parts & diagrams sources, information sources, price guide, and glossary.

You get lots of photos of rare and not-so-rare radios, diagrams, drawings, hints and tips, and loads of valuable information for the beginning collector. Because this is a 1982 edition, the prices listed in the rear are understandably low, but will nonetheless, give you a relative idea of just how valuable your old radio might be.

Interesting book. Fun reading. I wish it were three times bigger than it is! Think about ordering a copy.  
8 1/2 x 11 paperback 100 pages  
Cat. no. 361 \$10.95



# Radios That Work For Free!

## Build a High Performance Crystal Set!

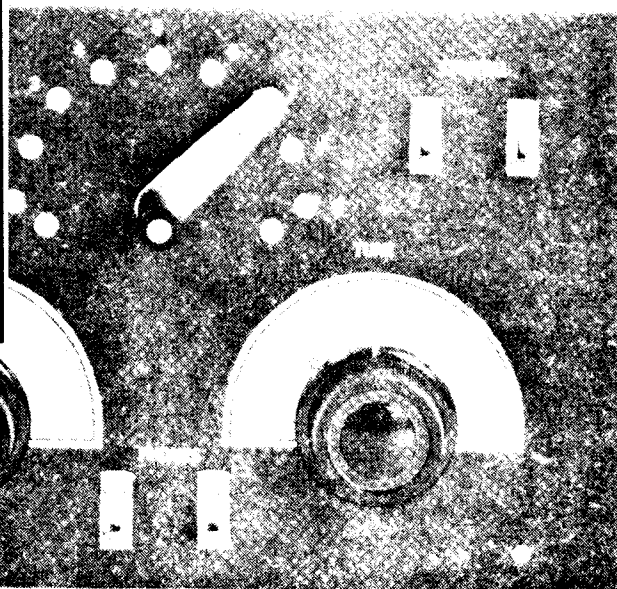
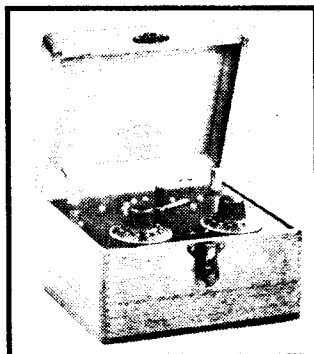
### RADIOS THAT WORK FOR FREE

by K.E. Edwards

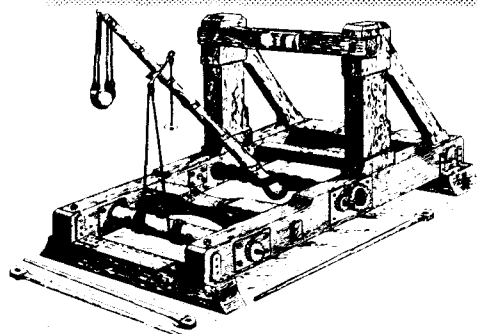
Build yourself a crystal set! You'll be shown everything you need to know - from materials to tools to techniques. Edwards will show you how to build "hot-rod" crystal sets with fancy features that can outperform the old oatmeal box versions, but are still simple. If you've never built anything electronic at any time but would like to try, this is a great place to start. This book has become a classic in its field, and it gives me a good feeling. I think you'll like it, too. 5 1/2 x 8 1/2 paperback 138 pages — well illustrated

Cat. No. 314

\$7.95



# Meet the Ancient Engineers & Admire Their Incredible Inventions!



## THE ANCIENT ENGINEERS

by Sprague De Camp

From the back cover "We stand and gaze at the Pyramids of Egypt... the walls and gates of Babylon... the Parthenon... the Lighthouse at Alexandria... the Aqueducts and Roads of the Romans... the Hagia Sophia... the Temple of Orissa... and we are amazed. How were they built? How were they designed? What body of knowledge existed hundreds and thousands of years ago to create such masterpieces of architecture, weaponry, and engineering? And who were the people who left these wonders behind?"

We think of earlier civilizations as being primitive. We arrogantly think that only we have the ability to build great complex structures. And then we see the pyramids. Truth is, man has engineered incredible inventions for thousands of years. Ancient Engineers explores these feats.

Nine chapters cover Egyptian, Mesopotamian, Greek, Hellenistic, Early Roman, Late Roman, Oriental and European engineers who built clocks, bridges, irrigation pumps, pyramids, catapults, aqueducts, long-since destroyed temples, and much more.

This is a well written, interesting book. Not just fanciful garbage. There's even a testimonial on the back cover from Isaac Asimov. Inexpensive. Get a copy! 4 1/4 x 7 inexpensive paperback 47 illustrations

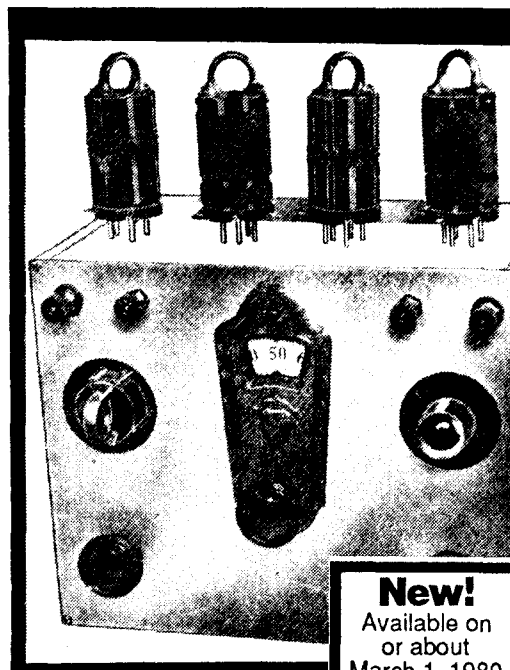
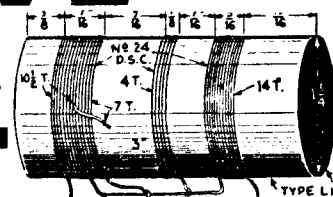
Cat. no. 753

\$3.50

"I offer only the best books I can find!"

*Lindsay*

# How To Build & Operate SHORTWAVE RECEIVERS



**New!**

Available on or about March 1, 1989  
Orders Taken in Advance

How to Build & Operate Short Wave Receivers by Short Wave Craft Magazine reprinted by Lindsay Publications

"Including Receivers for Beginners, Short Wave Converters, S-W Superheterodynes, Super-Regenerators, Television Receivers"

In his preface publisher Hugo Gemsback wrote, "The present volume is a combination of a great deal of the best constructional, Short Wave material that has come out during the past year. All of the circuits have been brought up to date, and there will be found here much that is new for the experimenter in short waves."

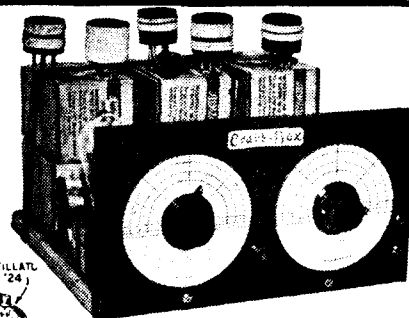
We have carefully sought to keep the contents up to the title of the book, and you will find that it is 100% 'How to Make and Operate.'

And it sure is. Jam packed in this fascinating little book are the best articles from back issues of Short Wave Craft magazine. We call it 1934 because that's the year it was published. Yet the preface and the original copyright carry a 1932 date.

You'll learn how to build bandswitching receivers, high performance multi-tube sets, power audio amplifiers, RF amplifiers, and much more. You'll enjoy the ads for parts, other books, and even experimental television systems using the old Nipkow scanning discs.

## CONTENTS

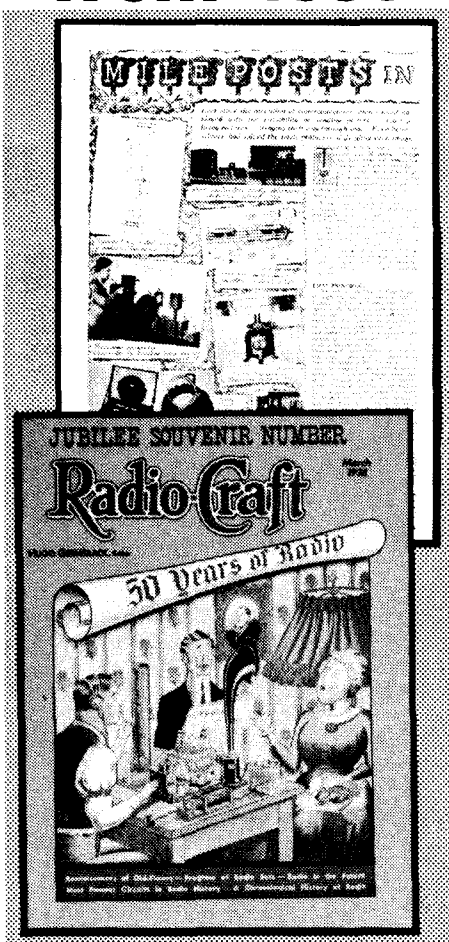
The SWC Two Tube Portable  
How to Operate a Shortwave Receiver  
Two Volt Two Tube Receiver  
A "Plug-Less" SW Receiver  
The Short Wave, Screen-Grid Craft Box  
Here's That 1-Tube SW Receiver  
How to Obtain Smooth Regeneration  
SW Receivers  
Fine Results with Tapped Coils  
A Short Wave "Fun Box"  
How to Build Really Efficient SW Converters  
One-Coil Super-Het Converter  
Short Wave Converter with "B" Supply  
SW Reception with Super-Regeneration  
Super-Regenerative Receiver  
New - Short Wave Superregeneration  
"My Favorite" Short Wave Receiver  
The "HY7B" Super-Het  
The "Egert" SWS-9 Super-Het  
A Super-Sensitive Short Wave Receiver  
Combination Long and Short Wave  
Adding 2 Stages RF to Hammarlund Receiver  
Short Wave Tuning, Less Plug-In Coils  
The "Ham's Own" Receiver  
The Superior Short Wave Receiver (Used at "G2DT")  
How to Build a Good Television Receiver  
My Favorite Audio Amplifier  
An SW Power Amplifier  
Time Zone Chart  
How to Gain Detector Sensitivity  
How to Use RF Chokes  
Practical Hints on Reception  
Adding Untuned Stage to SW Converter  
A "Separate" Regeneration Tube  
Coil and Condenser Data



Even if you never attempt to build any of this equipment, you'll still find this enjoyable reading. This is one of those low cost booklets advertised in the back of the early radio magazines that were published by the thousands but have now practically disappeared. You get all 72 original pages.

Interesting little publication. One of those booklets I read cover to cover a hundred times as a kid. I never thought I'd get my hands on another copy. You'll like it. Order a copy. 8 1/2 x 11 paperback 72 pages well illustrated  
Cat. no. 20129

\$7.95



**RADIO CRAFT MAGAZINE**  
March 1938  
*edited by Hugo Gernsback*

Radio got its start in the 1920's, but it wasn't until the 30's that it made it to the big time. By the late 30's "Radio-Craft" was one of many magazines entertaining and educating radio builders and enthusiasts.

In March 1938 the magazine published a special heavily illustrated edition on radio's first 50 years. And now you can have a complete reprint of that dynamite issue.

Articles include progress of radio receivers, reminiscences of old-timers, story of amateur radio, radio parts of yesteryear, mileposts in television, Fleming's valve, old-time radio stations, new tubes for '37-'38, super-regeneration in 1922, when the neutrodyne made its bow, early tube experiments and much, much more.

You get every fascinating article, advertisement and how-to construction tip. Great reading for anyone with even a slight interest in oldtime radio. Excellent book. Fun reading. Order a copy! 8 1/2 x 11 paperback 144 pp. Cat. no. 353 \$14.95

6

# Radio of the 1920's!

*Incredible new collection of ads,  
photographs, magazine articles!*



Licensed Under  
Armstrong Patent No. 1,113,149  
for Amateur and Experimental Use

A complete super selective Tuner, designed especially for those who desire the most sensitive and effective tuning system available. This is what is known as a "super selective" tuner. It is the most sensitive of the super selective circuits. All wavelengths from 150 to 800 meters can be received with maximum efficiency. There are two distinct circuits, one with a range of 150 to 300 meters, the other from 375 to 800 meters. Change from one circuit to the other may be effected instantly by means of a sliding switch. There is no loss of efficiency in the changeover circuit. All stations are absolutely no dead end capacity losses from the long wave inductance. The hookup is an arrangement that takes on the primacy of the outlet are avoided, which makes for more hair-factors operation. A lead shield is provided on the input and output capacity efforts from the hands and body of the operator are efficiently eliminated.

**Specifications**

Auricle condenser, #3 plate, capacity .001 mhd., fitted with molded knob and dial diameter, 3 1/8 inches. Secondary tuning condenser, 13 plate capacitor, .00025, fitted with molded knob and dial diameter, 3 1/8 inches. High grade Furukawa molded glass variometer for regeneration, fitted with molded knob and dial diameter, 3 1/8 inches. Coupling control, long and short wave changer and switch, 6 position. Antenna coil, 10 turns, 1/2 inch. Polished nickel plated spring binding post plainly marked. Polished mahogany finished cabinet, inside dimensions, 6 by 6 1/2 by 17 1/2 inches. All apparatus is directly mounted on the panel so that all working parts can be removed from the cabinet to use unit. Shipping weight, 3 pounds.

完全修理済み、完全に組み立て済みのセット  
\$58.50

### Tuska Standard Receiver—Type 222



Licensed Under Arm-  
strong Patent No. 1,113,149  
for Amateur and Experimental Use

[illegible]

**Species:** *Spiniferatus*

**Box:** Cabinet size inside, 8 to 8 1/2 by 17 1/2 inches. Flat polished mahogany finish.

**Base:** Reinforced formica panel, 8 by 17 1/2 inches, with machine engraved markings.

**Front:** Reinforced formica panel, 8 by 17 1/2 inches, with machine engraved markings.

**Top:** Reinforced formica panel, 8 by 17 1/2 inches, with machine engraved markings.

**Side:** Reinforced formica panel, 8 by 17 1/2 inches, with machine engraved markings.

**Back:** Reinforced formica panel, 8 by 17 1/2 inches, with machine engraved markings.

**Interior:** Reinforced formica panel, 8 by 17 1/2 inches, with machine engraved markings.

**Weight:** 150 to 160 pounds.

**Price:** \$55.00

## RADIO MANUFACTURERS OF THE 1920's

*by Alan Douglas*

If you love old radio equipment like I do, you'll really enjoy this. This, the first of two volumes, covers apparatus manufactured by A-C Dayton through J. B. Ferguson.

You get a big book of wall-to-wall illustrations of home console radios, crystal sets, regenerative sets sold to receive messages from MacMillan's North Pole expedition in 1925, ads for parts, magazine articles taking you inside radio factories and much more.

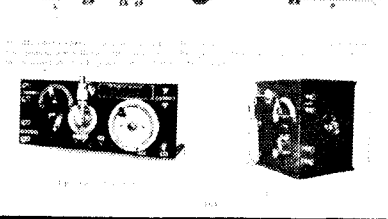
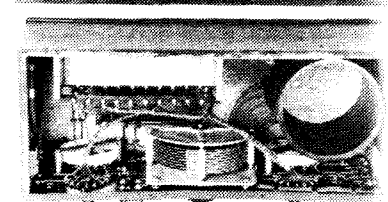
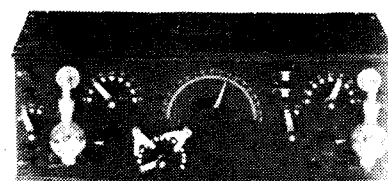
This is nostalgia, rather than how-to. But! If you're building old circuits, doing restorations, or just want to build a radio that looks old, you'll find more ideas than you can ever use. You'll like this "time machine" back to the 1920's when radio was taking off.

As an old radio buff, I wish I had published this. I think you'll like it, too. 8 1/2 x 11 paperback 225 pages

Cat. no. 356

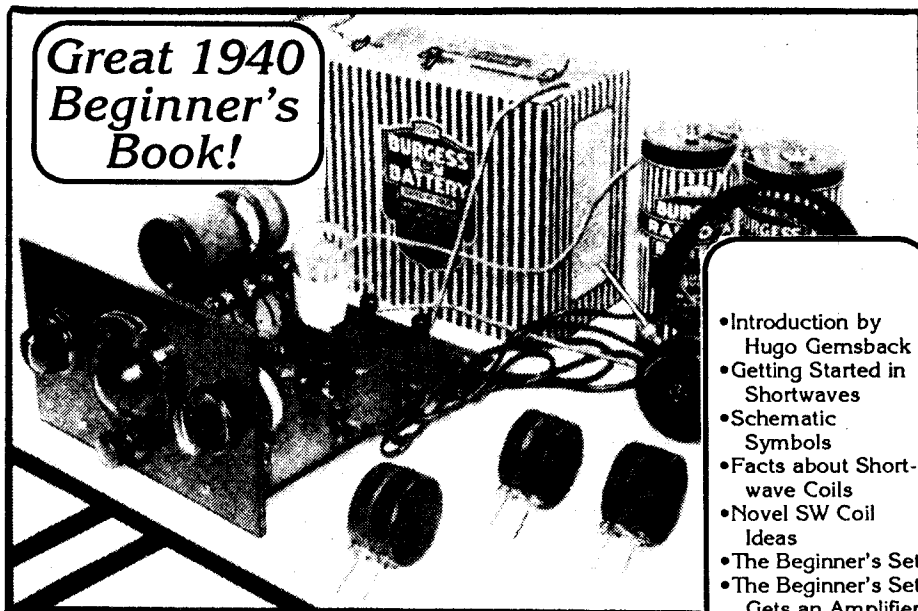
**\$19.95**

***Go Back to  
1920 &  
Pick out  
the radio of  
your  
dreams!***





## Great 1940 Beginner's Book!



# Shortwave Beginner's Book

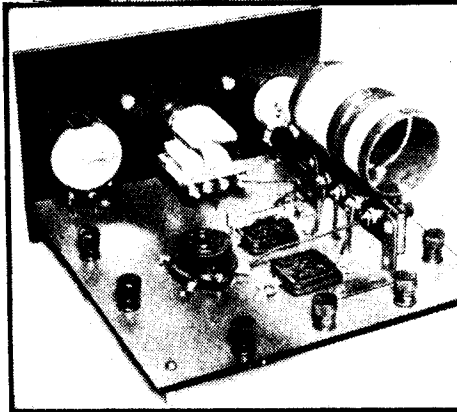
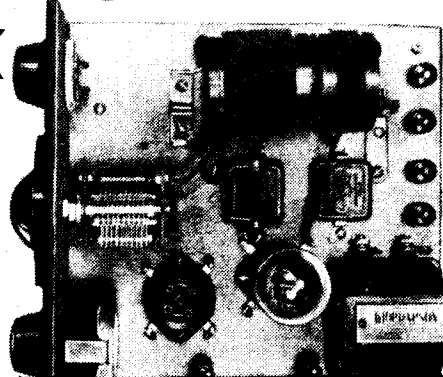
**SHORTWAVE  
BEGINNER'S BOOK**  
by Radio & Television  
Magazine  
reprinted by Lindsay  
Publications

The full title is "Short Wave Beginner's Book including a complete course of instruction in shortwave; details for making short-wave aerials; a complete beginner's set; coil winding data; operating kinks." And it's 36 pages of dynamite ideas from 1940.

Short Wave Beginner's Book was targeted for the raw beginner. It explains everything in detail, showing the reader not only the schematic but diagrams of what wire to hook where. Even templates are provided for drilling the chassis. Very little is left to the imagination.

True, the sets are not overly sophisticated, but they're a great place to start. For instance the beginner's set uses a single 30 vacuum tube with a 45 volt B battery. In the next chapter another 30 tube is added as an audio amplifier.

You get excellent discussions on topics such as coupling amplifier circuits, insulators



that can be used on shortwave antennas, and code practice oscillators. And everything is nicely illustrated.

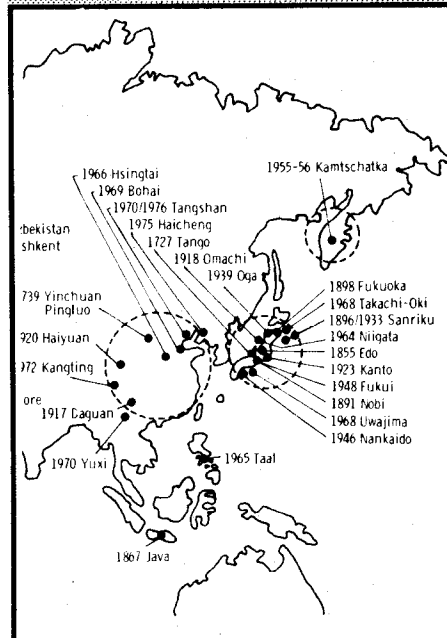
Here's another fun old-time shortwave radio book you should have. And it's reasonably priced! It's another MUST for your old time radio book collection. Order a copy. 7x9 booklet 36 pages

Cat. no. 4961

\$4.95

- Introduction by Hugo Gernsback
- Getting Started in Shortwaves
- Schematic Symbols
- Facts about Short-wave Coils
- Novel SW Coil Ideas
- The Beginner's Set
- The Beginner's Set Gets an Amplifier
- Smoothing Up the Regeneration Control
- New Kinks for the SW set
- Which Regeneration Scheme?
- Tuning the Short Wave Receiver
- How to Make Worth-While Audio Amplifiers
- Short Wave Operating Hints
- Coupling the RF Stage to Detector
- Audio Amplifiers for SW Sets
- Methods of Coupling to Speakers
- Aerials for Short-Wave Receivers
- Good Antenna Design
- Some Things You Don't Know About Aerials
- Learning the Code
- Home-Made Antenna Coupling Condensers
- A Panel Mounting SW Coil Assembly
- A Meter-Kilocycle Conversion Chart

## WHEN SNAKES AWAKE!



### WHEN THE SNAKES AWAKE Animals & Earthquake Prediction by Helmut Tributsch

From the back cover: "Two days before an earthquake struck Helice, Greece, in 373 BC, snakes, weasels, and worms deserted the city. Minutes before the Naples quake of 1805, oxen, sheep, dogs, and geese cried out in unison. A herd of horses tore loose and ran off in panic just prior to the San Francisco earthquake of 1906.

Helmut Tributsch, Professor of Physical Chemistry at the Free University of Berlin, visited his native village of Friuli shortly after it had been devastated by an earthquake in 1976. He was intrigued by the stories told by his old friends about their animals' strange behavior in the hours before the quake. This experience started Tributsch on a search through ancient and modern literature for stories relating animal behavior and the appearance of such phenomena as luminosity, clouded springs, and strange fogs to the onset of earthquakes. This book summarizes his findings and presents a plausible explanation for them. Tributsch urges Western scientists to follow the lead of their Chinese colleagues and learn to use these signs as a possible key to the prediction of natural disasters."

This is really an interesting book published by MIT covering 78 earthquakes from 373 BC to 1979 and the unusual phenomena that accompanied them. Not only is it interesting reading, but researches into the fringes of science will find the tables in the appendices quite useful.

Unusual. Reliable. I think you'll like it. 6x9 paperback 248 pages  
Cat. no. 752

\$9.95

# Electrical Instrument Making for Amateurs

*Build Unusual  
Electrical Equipment  
from 1888!*

**ELECTRICAL INSTRUMENT-MAKING  
for Amateurs**

by S. R. Bottone

reprinted by Lindsay Publications Inc

The words "electrical instruments" bring to mind test equipment: meters, signal generators, and oscilloscopes. But back in 1888 when this volume first hit the bookstores, electrical instruments could be anything from simple Leyden Jar capacitors and static electricity machines to dynamos and telephones, as well as ammeters, voltmeter and galvanometers.

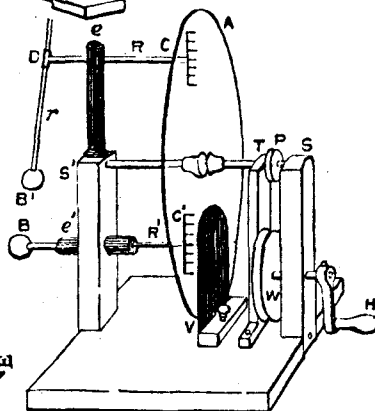
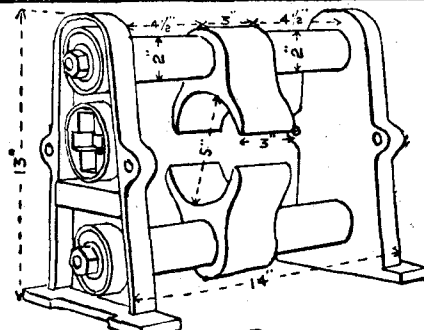
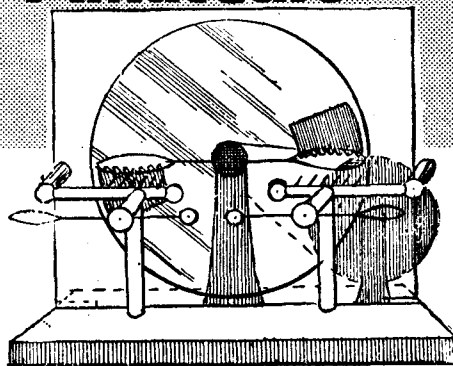
With this as your guide you can go back a hundred years and imagine what it must have been like to be experimenting right at the cutting edge of technology. You can build your own batteries from scratch, use them to run a shocking coil while you monitor the current draw with homemade meters!

You get basic information on materials, soldering, and working glass. Then you build pith ball and gold leaf electroscopes, a Coulomb torsion balance, and Volta's electrophorus static generator. You'll learn how to take a sheet of glass and cut a circle from it, drill a hole in the center and use it to build Bertsch's high-voltage static generator, Carre's Dielectric machine, a Holtz machine, and a Wimshurst influence machine. Any one of these machines is powerful enough to shock the underwear off Aunt Annabelle! And you get info on building a Leyden Jar, Franklin plates, and a microFarad condenser.

Next come the devices that use current electricity. You'll learn how to build a medical

coil that produces a 1/2" spark, or if you care to make a simple modification you can get 1" spark, in which case the machine is called an induction coil. With a powerful magnet you can make a shocking machine which appears to be little more than a simple magneto. Then you build a uni-direction current machine (a motor), a dynamo, an ammeter, a voltmeter, a galvanometer, and a thermopile that produces electricity directly from heat.

You'll be shown how to build batteries, a single fluid cell, a double fluid cell, and using these two basic configurations how to create powerful batteries using chemicals from zinc chloride and sulphuric acid to sal ammoniac and potassium dichromate which are more commonly known as the Daniell, Bunsen, Smee, Walker cells and others.



Then you get simple plans so that you can build a working electrical telephone, the newest rage a hundred years ago. And finally you get a couple of appendices that add additional information on galvanometers and batteries.

Obviously so many topics are covered in such a small book that

the number pages devoted to each topic are necessarily limited. Any one topic could really be expanded into a book of its own. But even so, you get enough useful information to build working equipment. The illustrations are primitive by today's standards, but are very informative nonetheless.

This is a fascinating book you're sure to enjoy. Lot's of valuable information at a price far below what you would have to pay for a now-rare original copy. With this book you can go back and rediscover the world of electricity. Get a copy. You'll really like it. 5x7 paperback 183 pages

Cat. no. 4929

\$9.95

# EDISON



**Edison— A Biography**

by Mathew Josephson

Edison—the inventor's inventor. Everyone has heard of him. But are all the wild stories we've heard really true? What kind of a guy was he?

Edison never really attended school. He was taught by his mother, and his father was a strange man. Edison's first adult job was as a telegrapher which later led him to invent repeater relays, automatic telegraphs, circuits for sending several different telegraphs in different directions over the same wire, and on and on. He even got himself in the middle of a bitter fight between the robber baron Jay Gould and the Western Union monopoly—talk about dirty pool!

To get away from New York, Edison built a lab in Menlo Park, New Jersey. And for ten years excited the world with new inventions from the phonograph and electric light to the electric locomotives and even parts of the telephone (Alexander Graham Bell beat Edison to the patent office by just days.)

By the time Edison went back to New York to build the electric system, he was already a millionaire (at 28). Then came a new lab in West Orange, a second wife (after his first died), moving pictures, an ore separator, an alkaline battery and much more.

Here's the inside scoop on the man who is considered the first professional inventor. You'll find that Edison didn't have time to pursue all his ideas, and that there are probably ideas and inventions waiting to be resurrected somewhere in the more than 1000 patents Edison held.

Read about this incredible guy. Edison's wife finally put her foot down when the inventor turned 75 and told him he has to work fewer hours — so he cut back to 16 hours a day!

Get a copy of this. If you enjoy technology, inventing, collecting, or just about anything you see in this catalog, you should find this biography quite interesting. It's a little slow reading in places, but it's loaded with details that will tell you the truth about what happened and why. After you read this, you can better appreciate who Edison was and why this country and the world is the way it is today. Excellent book. Quite reasonably priced. 6 x 9 paperback 512 pages with photos

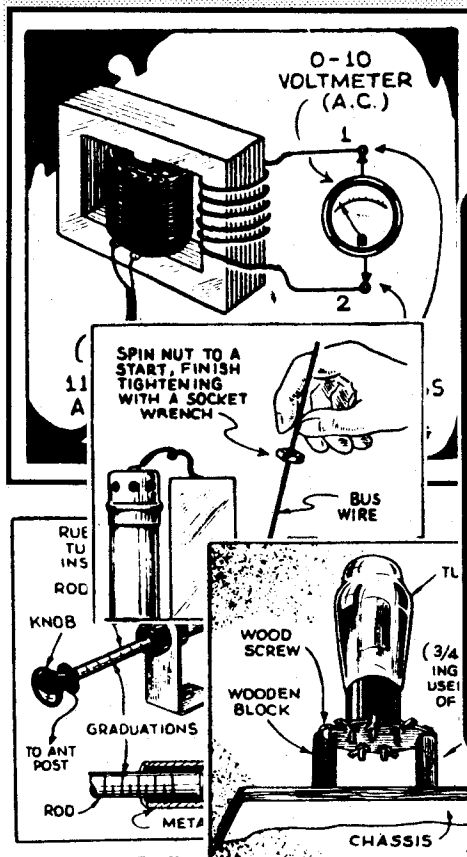
Cat. no. 727

\$10.95



# Short Wave Radio QUIZ BOOK AND KINKS

**Fantastic 1938  
Collection of  
Hints & Tips**



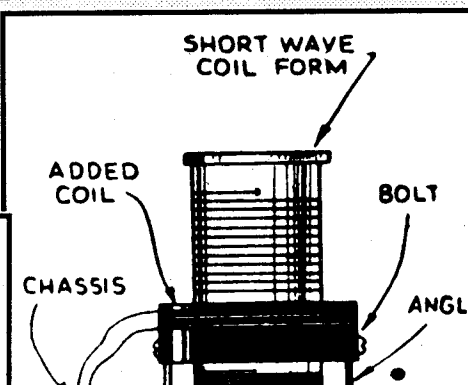
## Short Wave Radio QUIZ BOOK AND KINKS

by Short Wave & Television Magazine  
reprinted by Lindsay Publications

Short Wave & Television Magazine frequently published reader's questions and answers as well as small "fillers" of circuits, hints, tips and kinks. In 1938 a collection of these tiny articles was reissued in this 64 page book.

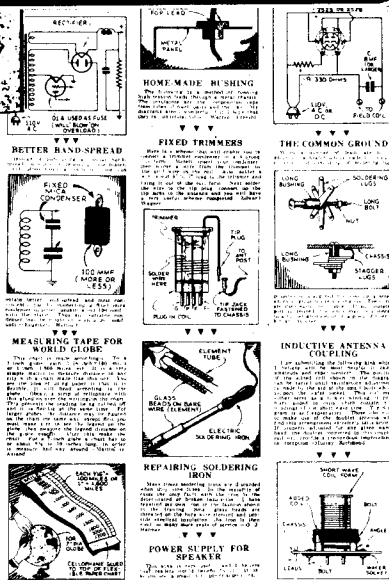
You'll get tips on winding coils, bending chassis, soldering phone tips, making a lightning arrestor from a spark plug, plans for a rf amplifier, a 2 tube SW set, another for a motorcycle, a 2 tube battery set, a 6.3 volt 3 tuber, and on and on. There are hundreds of hints and kinks here!

You'll wish the stories were longer, but there are so many great ideas (some a little ridiculous) that you won't complain. It's fun reading. I like it, and I think you will, too. Order a copy. 5 1/2 x 8 1/2 paperback 64 pages  
Cat. no. 4945 \$4.95

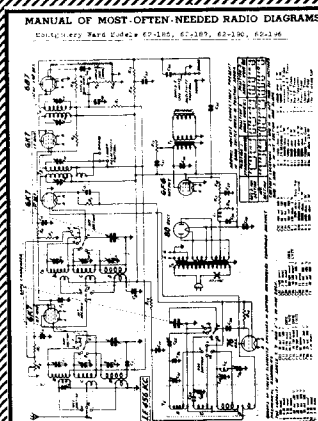


## You Get

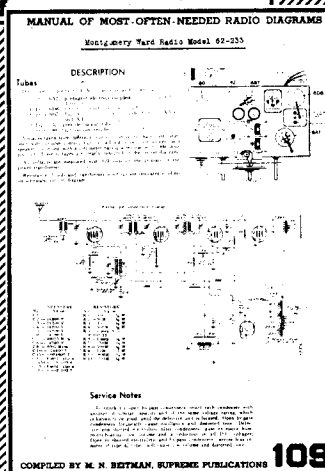
- SW Receivers for 110 VAC Operation
- AC-DC Receivers
- Battery Type SW Receivers
- Short-Wave Antennas
- Antenna Hints
- Short-Wave Converters
- Pre-Amplifiers
- Miscellaneous SW Hints
- Beat Oscillators
- Power Supplies
- Audio Amplifiers
- A Folded Doublet to Save Space
- How to Get Best DX
- Simple 1-Tube Booster
- A Twin Pentode Receiver for the Beginner
- Kinks for SW "Fan"
- Easy-to-Build Short Wave Transmitters
- Code Practice Oscillators
- 5-Meter Receivers
- "Ham" Kinks



# Old Radio Diagrams!



108



109

## Most Often Needed 1926-1938 RADIO DIAGRAMS

and Servicing Information  
compiled by M. N. Beitman

Reprinted from out of the past is this great collection of wiring diagrams and service tips on most of the radios likely to be encountered by a radio serviceman in 1938.

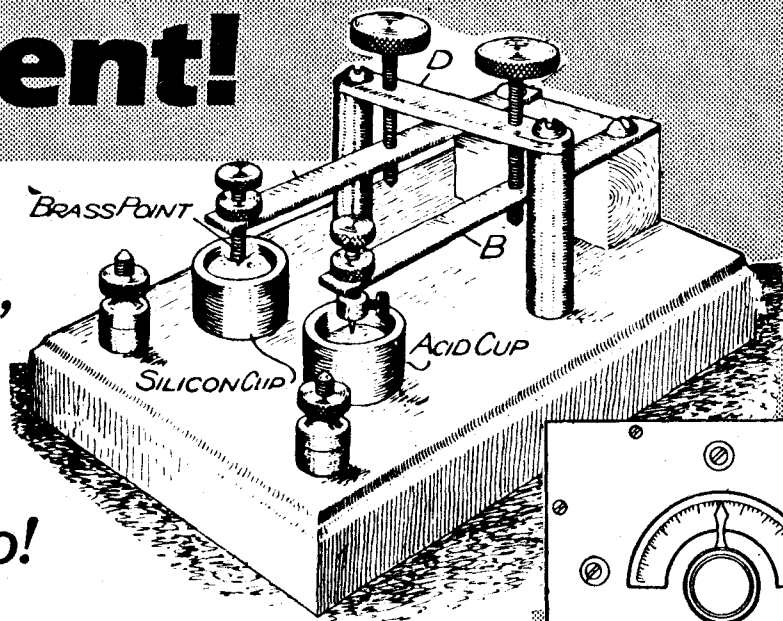
You get not only the circuit diagram but in many cases parts numbers, voltage measurements at critical points, chassis drawings, alignment specs for superheterodynes, and more.

You'll find mostly diagrams for superhets, but there are a few regens from the "old days". Many receivers have shortwave bands. And although I consider myself at least somewhat knowledgeable about old radio technology there are tube numbers used here that I've never even heard of!

If you collect radios or like to build old sets using old parts, this is for you. You'll find everything from Atwater-Kents to Zenith radios listed. A valuable reference. Good stuff. Consider it carefully. 8 1/2 x 11 paperback 240 pages  
Cat. no. 362 \$11.95

# High Power Wireless Equipment!

**Tesla Equipment,  
Crystal Detectors,  
Rare Radio  
Equipment from  
1910-11!  
Incredible How-To!**



## HIGH POWER WIRELESS EQUIPMENT

by Alfred Morgan  
reprinted from *Popular Electricity Magazine* 1910-11

If you wanted to try your hand at the newest 1910 electrical craze of transmitting telegraphy without wires, you had to build your equipment. The few pieces of equipment available commercially would probably have been way beyond your pocket book.

Here, in a series of fifteen installments, Alfred Morgan provided his readers with complete, detailed, dimensioned directions for building everything from the key to the aerial, from the induction coil and spark gap, to the helical transmitting coils. As a slice of early radio history this is fascinating reading.

You won't want to build a spark-gap transmitter, they're inefficient and illegal to operate. But you'll find bits and pieces quite valuable. If you build crystal sets, you'll find the detectors very valuable.

If you like to build high voltage equipment, you'll find the induction coil, spark gaps, condenser and other plans useful. Early transmitters were essentially Tesla coils turned off and on with a key. A later chapter actually describes Tesla and the work he did, how to build one of his coils, how to use his equipment in wireless telegraphy.

And you'll find a chapter loaded with hints and kinks on everything from building condensers and using a coherer detector to how enamel wire and make a variometer.

This is all practical hands-on early radio and high-voltage electricity reprinted from the original hard-to-find magazines. Think about the possibilities. It might be fun to build an old wireless station just to show people today how it was done before semiconductors. No matter what your angle or interest is, you'll find this detailed how-to to be fascinating. Excellent rare, early information! Order a copy of this. It's worth having.

5 1/2 x 8 1/2 paperback 99 pages

Cat. no. 4953

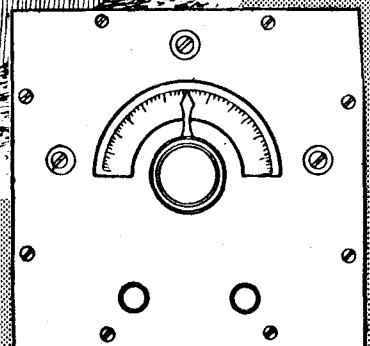
\$9.95

## HARDCOVER EDITION

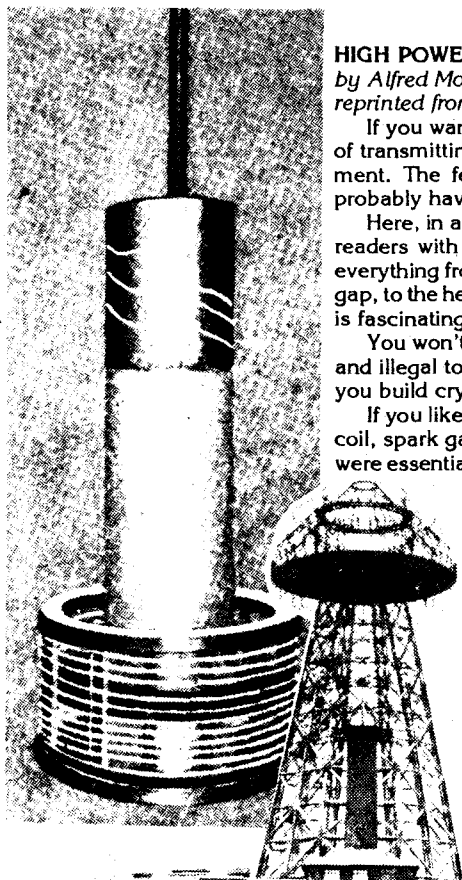
A small portion of the print run has been beautifully hardbound for libraries and collectors.

Cat. no. 4970

\$15.95



- Aerials
- Aerial Switch & Induction Coil
- Induction Coil Secondary; Key
- Independent Adjustable Interrupter
- Oscillation Condenser
- Transmitting Helix
- Hot Wire Ammeter
- Two KW Closed Core Transformer
- Two KW Transformer Cont'd
- Detectors
- Detectors Cont'd
- Potentiometer; Fixed Condenser
- Loose Coupled Tuning Coil
- Variable Condenser
- Directions for Operating
- Tesla and His Wireless Age
- Construction of Tesla High-Frequency Apparatus
- High Frequency Apparatus for a Wireless Set
- Hints and Kinks

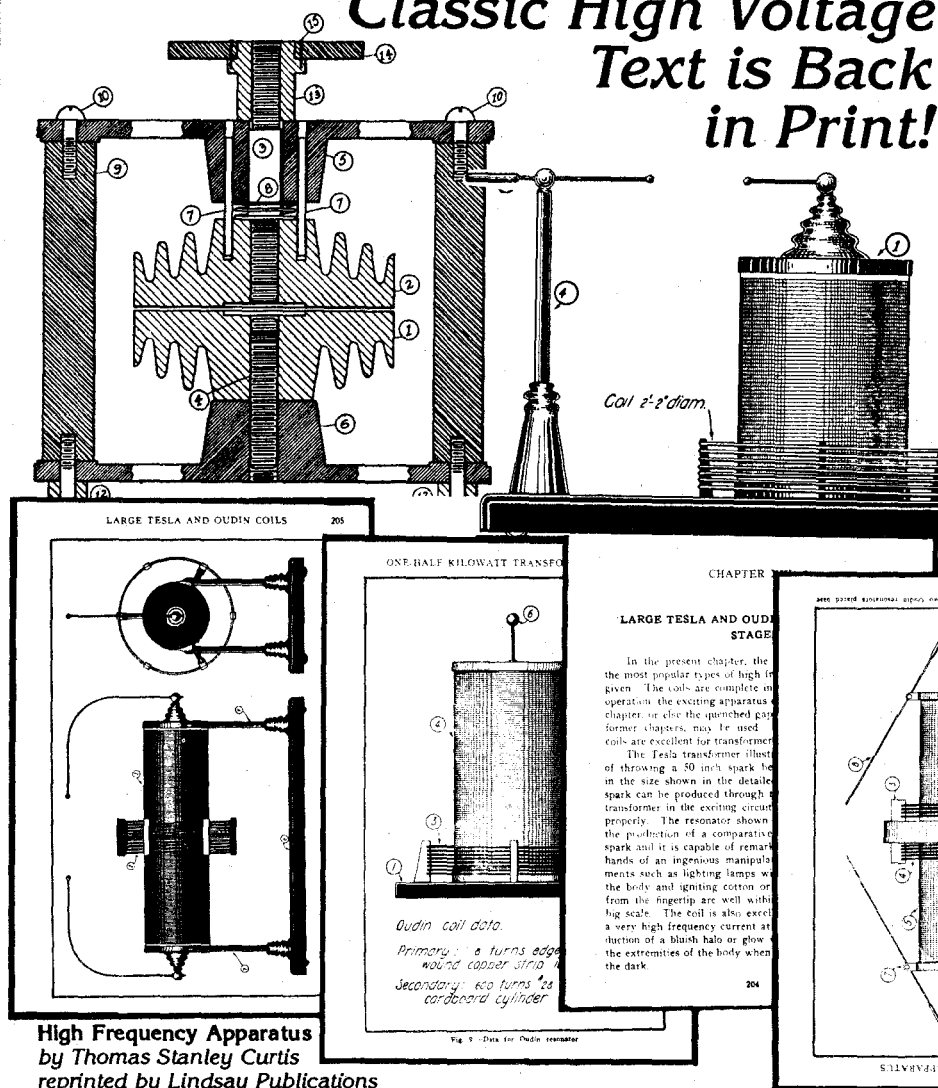


# HIGH FREQUENCY APPARATUS

*Classic High Voltage  
Text is Back  
in Print!*

## Contents

- 1 Alternating Current at Low and High Frequencies
- 2 How the High Frequency Current is Produced
- 3 The High Potential Transformer or Induction Coil
- 4 The Oscillation Transformer
- 5 The Spark Gap
- 6 Oscillation Transformers
- 7 Induction Coil Outfits Operated on Battery Current
- 8 Kicking Coil Apparatus
- 9 One-Half Kilowatt Transformer Outfit
- 10 Quenched Gap Apparatus
- 11 Physicians' Portable Apparatus
- 12 Physicians' Office Equipment
- 13 Hot Wire Meter Construction
- 14 Notes for the Beginner in Electro-Therapeutics
- 15 Plant Culture with High Tension Current
- 16 High Frequency Plant Culture
- 17 A Foreword on the Construction of Electrical Apparatus for the Stage
- 18 Construction of Large High Frequency Apparatus
- 19 Large Tesla and Oudin Coils for the Stage
- 20 Construction of a Welding Transformer
- 21 Hints for the Electrical Entertainer
- Appendix Parts and Materials – How Much They Cost and Where to Get Them



High Frequency Apparatus  
by Thomas Stanley Curtis  
reprinted by Lindsay Publications

By 1916 so much interest in induction, Tesla and Oudin coils had been generated by *Electrician & Mechanic*, *Popular Electricity* and *Modern Mechanics*, and *The World's Advances* magazines, that Curtis knew his book and high voltage equipment he manufactured would be a hit.

Because of their very nature, magazines could publish only brief articles on these lightning bolt generators. Curtis went the other extreme, and packed "Apparatus" with as much detailed information as he could find. Then he added suggestions for experiments and dozens of illustrations. The result is now a classic book, and original copies are so coveted that they're difficult to find.

You get wall-to-wall how-to on coil construction. Tips on calculating windings, winding coils, making transformers, interrupters and spark gaps, and even the power transformers that drive the spark gap.

If you want to die young, you can build an X-ray apparatus. Use it long enough, and you and everyone in your apartment

building will glow in the dark!

Build a grid and see for yourself if high frequency current really does affect plant growth. Build yourself a large coil that produces 50" lightning bolts, give lectures, and make people think you are a genuine mad scientist. (Bring your mother-in-law along. They might mistake her for Frankenstein....)

Great book. And absolutely **MUST HAVE** book for the Tesla coil experimenters. Get a copy for your high-voltage library. Quality. Order a copy today. 5 1/2 x 8 1/2 paper 247 pages well illustrated  
Cat. no. 20030

\$11.95

### Special Hardcover Edition

A fraction of the print run has been hardbound with quality materials for the serious student and collector. This edition may be unavailable for long periods of time.

Cat. no. 20048

\$18.95



# Tesla Coil Secrets!

## TESLA COIL SECRETS

by R. A. Ford

Be the first on your block to blast your neighborhood with high voltage! Shock the socks off your friends and relatives! Zap those pesky cats digging in the garbage can! Make people think you really are building a Frankenstein monster in your basement!

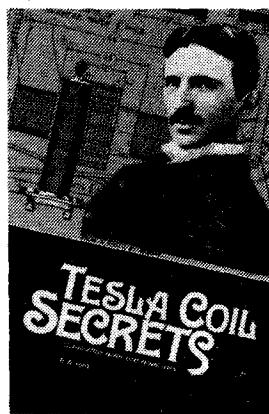
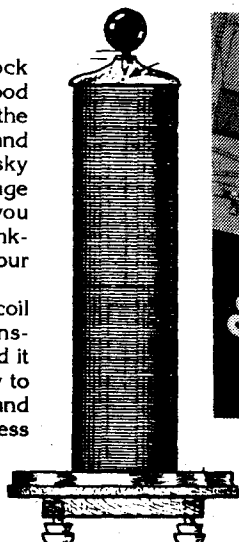
As you know, a Tesla coil is a high voltage transformer. Nikola Tesla used it at the turn of the century to generate lightning bolts and to investigate the wireless transmission of electrical power.

This fascinating book is not really a how-to-build book. Actually, an avid researcher who has built several coils and has accumulated articles, clippings, notes, and bits-and-pieces over the years has opened up his scrapbooks to us.

You'll see all the interesting hints, plans, and wiring diagrams gleaned from early magazines that ceased publication decades ago along with formulas, notes, and observations he believes are important for building powerful coils. Many of the old articles are so detailed that you can probably use them to build a powerful experimental coil. There are notes on one machine the could kick out five foot lightning bolts!

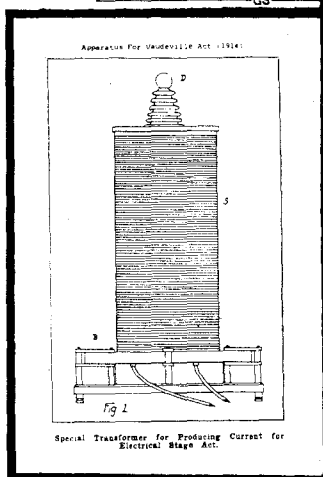
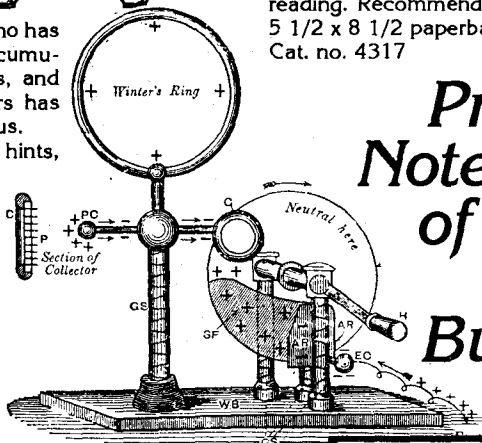
If you're really into Tesla coils, you may have seen a few of these clippings already. But I'll bet there are others you haven't seen. You'll get info on rotary spark gaps, anti-kick-back devices, Leyden jar capacitor construction, conical Tesla coils, Oudin coils, and suggestions on research into wireless power transmission, plant growth stimulation, medical uses, and more.

Many of the reprinted articles are fuzzy and a few hard to read. Most have been enlarged to bring out the construction details, and have been

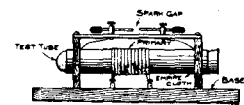


Tesla didn't have time to pursue or reveal. Rare info! Too bad the book isn't ten times bigger. Get a copy for the reference library if for no other reason. Interesting reading. Recommended!  
5 1/2 x 8 1/2 paperback 74 pages  
Cat. no. 4317 \$6.95

## Private Notebook of Tesla Coil Builder

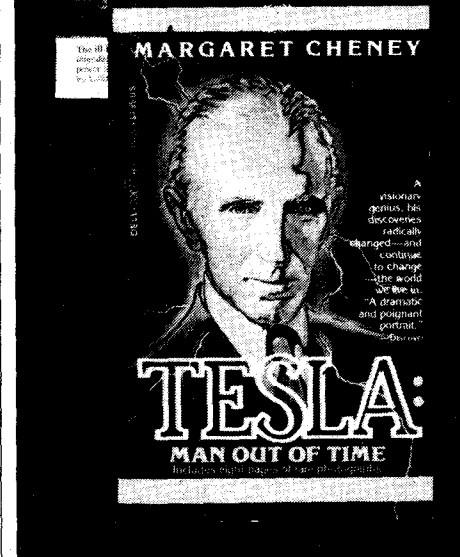


**A MINIATURE TESLA COIL.**  
Most owners of small induction coils have at some time or other wished that a Tesla coil giving results could be built to run on their apparatus. This article describes a Tesla coil made to work with a one-quarter inch spark coil.



Make a base 8x3x1/2 inches, and two uprights two inches square and one-quarter inch thick. Now get a test tube 5 3/4 inches long, inside diameter three-quarters inch. A cardboard tube of the same dimensions will do. Through each of the uprights drill a hole large enough to let the test tube slip through. Starting one-half inch from the end of the tube, wind on about 135 turns of No. 31 single silk copper wire, spacing the turns 1/32

## Who Was Nikola Tesla?



## TESLA: MAN OUT OF TIME

by Margaret Cheney

"Flamboyant, eccentric, almost supernaturally gifted, had he been born today he would still be ahead of his time. Called a madman by some, a genius by others, and an enigma by nearly everyone, Nikola Tesla was perhaps the greatest inventor the world has ever known..."

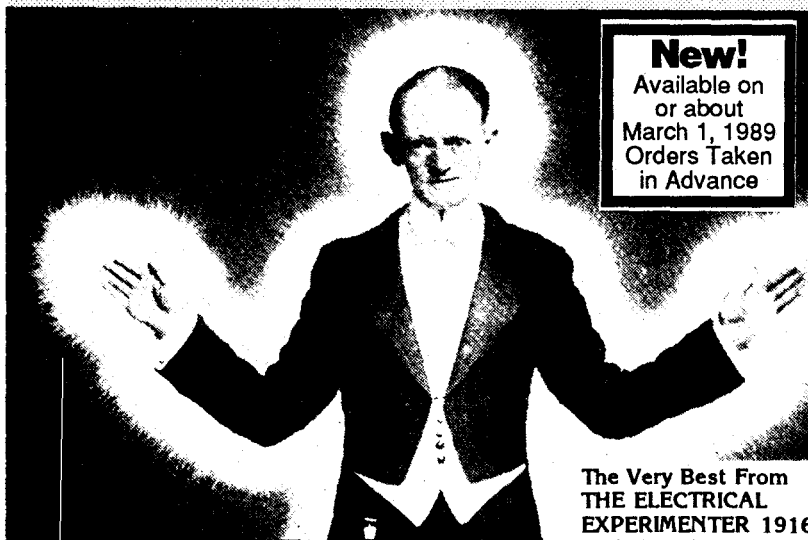
"It was Tesla who harnessed the alternating electrical current that we use today... Tesla who actually invented radio... Tesla who invented fluorescent lighting and the incredible bladeless turbine. He introduced us to the fundamentals of robotics and computer and missile science, which continued to create and transform the future..."

There are many books about Tesla, some of them are garbage written by groupies who worship Tesla as a god. Here's a great factual biography that has gotten great reviews — the story of a wizard who was Edison's enemy, Mark Twain's friend, and J. P. Morgan's client. This is the real story. Excellent book at a reasonable price. Order a copy. 310 pages "mass" paperback a few photos

Cat. no. 717

\$4.95

# The Very Best from the ELECTRICAL EXPERIMENTER 1916-1917



**New!**  
Available on  
or about  
March 1, 1989  
Orders Taken  
in Advance

The Very Best From  
THE ELECTRICAL  
EXPERIMENTER 1916-1917

anthology by  
Lindsay Publications Inc

You can go back to read the very best articles from one of the earliest hobbyist electronics magazines published. Gernsback's *Electrical Experimenter* was filled with basic information, ads for early equipment, and most importantly how-to projects designed to be built from the most primitive materials.

Readers learned how to build unusual crystal set receivers with unusual detectors, high power wireless sets, and all the equipment that went into their construction. Today, you buy electronic equipment, put batteries in it, and turn it on. Back then you built your batteries!

You'll find how-to articles on high voltage Tesla coils, induction coils, spark gap construction, batteries, detectors, water power systems, selenium cells for experimenting with primitive television systems, and more.

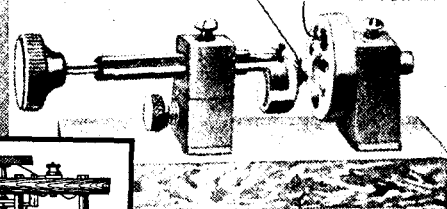
You get theoretical papers by MD's describing how new electrical equipment would revolutionize medicine. You get history on Fessenden and Tesla. You'll learn how to measure capacity, and much more.

You get the very best articles from this two year span, and by best we mean plans

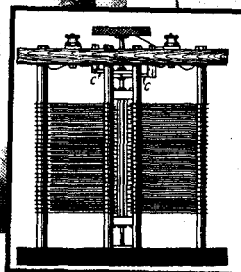
You should know that most of the photographs in this book are not of the best quality. Poor originals, yellowed paper, oversized pages have combined to make the photographs "muddy". The drawings are very sharp, and most type is quite readable, but the photos leave something to be desired. All we can say is that we did the best job we could. See what you think.

PERIKON DETECTOR

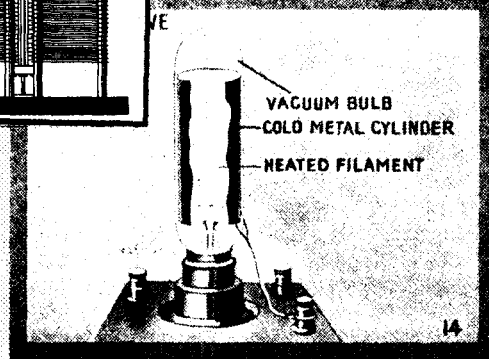
COPPER PYRITES  
ZINCITE CRYSTALS



11



VACUUM BULB  
COLD METAL CYLINDER  
HEATED FILAMENT



14

and information that is very difficult to find today. Many articles that cover the basics of electricity were omitted because you can find comparable material in modern magazines. Some plans were omitted because they were not unusual enough, such as motor and dynamo plans. You can find such plans in many old books.

What you will find is solid, interesting and useful information. Be careful, though! Some of this info is downright dangerous. You can get yourself electrocuted. You can give you and your neighbors cancer if you build and operate an X-Ray machine. Be very careful.

This is a great collection of rare material — something you should have in your reference library. Wall-to-wall illustrations! Interesting reading. Order a copy! 8 1/2 x 11 paperback 108 pages Cat. no. 20137 \$9.95



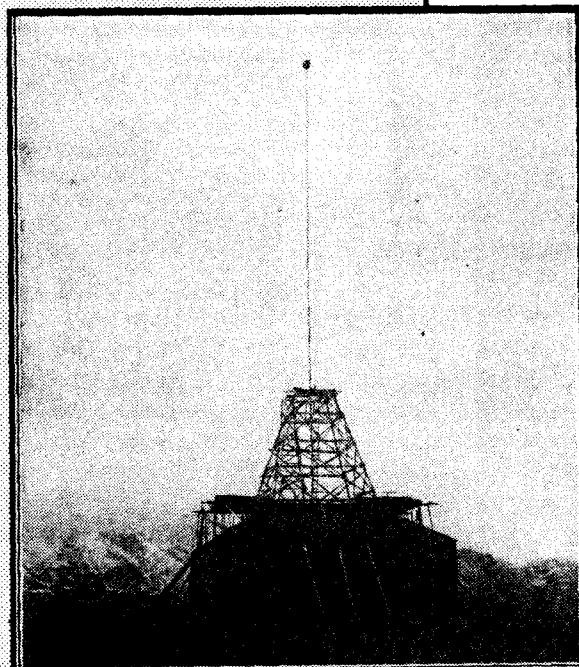
## CONTENTS

Collin's Radiophone Arc Detector, Spark Gap, Hints & Tips  
Wrinkles, Recipes, Formulas  
Water Wheel Drives for Private Lighting Plants  
Construction & Use of the Gold-Leaf Electroscope  
Marvels of Modern Physics (Electricity & Medicine)  
Vacuum Detector & How It Works  
A Small Static Machine  
Making Selenium Cells  
Giant 48" Spark Coil  
Rotary Spark Gaps  
High Frequency Alternator for Testing Crystal Detectors  
Chromic Acid Battery  
Construction of Wheatstone Bridge  
Lightning Made to Order  
How & Why of Radio Apparatus - Induction Coil  
High Frequency Resonator for Spark Coils, Making Chlorine  
Transmitting Your Photo Over a Wire  
Armstrong Regenerative Audio System  
An Adjustable Fixed Condenser, Electric Thermometer  
Reginald A Fessenden Radio Detector Development  
Gas Batteries  
The Measurement of Capacity  
Dr. Nikola Tesla & His Achievements  
How & Why of Radio Apparatus - Condensers  
Construction of a 6-Volt, 25 AH Storage Battery  
Bottle Tesla Coil, Experimental Arc, Hints & Tips

Electricity & Life  
The Quenched Spark Gap  
Build a 500 Watt DC Dynamo  
Double Capacity Rotary Variable Condenser  
Construction of High-Frequency Apparatus for Medical & Lecture Use  
Use of High-Frequency Currents in Medical Work  
How & Why of Radio Apparatus - Spark Gaps  
High Frequency Apparatus and Experiments  
36" Spark Tesla Coil for Lecturers  
Amateur and Experimental Radio Research  
Tesla's Views on Electricity & War  
Suggestions for Radio Research Work  
Converting a Tuning Coil into a Cabinet Tuner  
A Hand-Feed Arc for the Experimenter  
X-Ray Tubes for High Frequency Coils  
Selenium Cell Design & Construction  
Home-Made Arc Search Light  
A Simplified Variable Condenser  
Constructing a 1/4 KW High Frequency Oudin Coil  
Construction of a Laboratory Vacuum Pump  
Regarding Tesla & Oudin Coils  
How I Telegraph Pictures  
How to Use High Frequency Currents in the Treatment of Disease

# Tesla's Experiments with Alternate Currents!

Power transmission without wires: the London Lecture plus a 1904 magazine article on the Colorado Springs experiments! Rare book!



Experimental Laboratory, Colorado Springs.

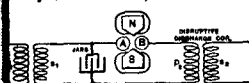
## EXPERIMENTS WITH ALTERNATE CURRENTS of High Potential & High Frequency by Nikola Tesla

"A lecture delivered before the institution of electrical engineers, London, by Nikola Tesla with an appendix by the same author on the transmission of electric energy without wire, reviewing his recent work, and presenting illustrations from the photographs never before published".

Quite a title! Quite a book! There's so much written and published about Tesla (and too much of it is pure garbage), that it is refreshing to have the inventor himself explain his experiments, theories, and plans. It's all here, every page from the original 1904 book — complete with unusual illustrations showing disruptive discharge coils, improved discharger and magnet, luminous discs, single wire and no wire motor, unusual electric lights for use with the high-frequency AC that is generated by the Tesla coil, and much more.

The last fourteen pages of the book is a reprint of Tesla's article from the March 5, 1904 issue of "Electrical World and Engineer" complete with photographs of the experimental apparatus at Colorado Springs and Long Island built to test the transmission of electrical power without wires.

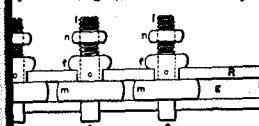
section indicated diagrammatically in Fig. 5, the currents forming the arc are much more the magnetic field exercises a greater influence of the magnet permits, however, of the used by a vacuum tube, but I have encountered



MENT WITH LOW-FREQUENCY ALTERNATE AND IMPROVED DISCHARGER.

Difficulties in working with an exhausted

tion of discharger used in these and similar indicated in Figs. 6 and 7. It consists of a pieces c c (Fig. 6), each of which comprises



DISCHARGER WITH MULTIPLE GAPS.

The portion m with an extension e below—used to fasten the piece in a lathe when discharging surface—and a column above, of a knurled flange f surmounted by a carrying a nut n, by means of which a

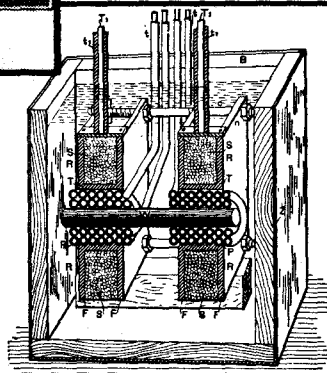


FIG. 3.—DISRUPTIVE DISCHARGE COIL.

coil and other apparatus used in the experiments with the disruptive discharge this evening.

It is contained in a box B (Fig. 3) of thick boards of hard wood, covered on the outside with zinc sheet Z, which is

Anyone who studies Tesla, builds his coils, or wants to perfect the inventions that Tesla didn't have time to finish should have a copy of this book. The writings of Tesla himself should be the cornerstone of any Tesla library, and here is your chance to get your own copy of this now-rare book. Interesting reading. Historically important. Get a copy.

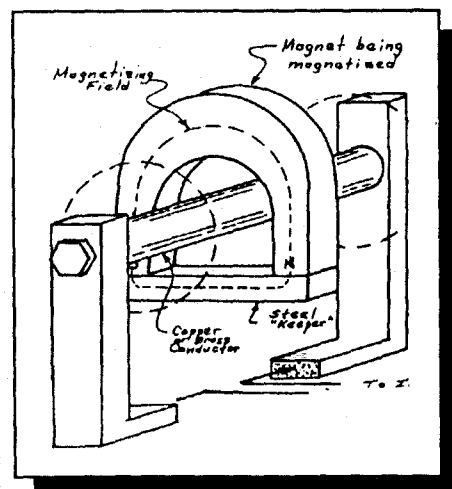
5 1/2 x 8 1/2 paperback 170 pages.

Cat. No. 4392

\$9.95

# Permanent Magnet Design & Application Handbook!

State-of-the-art



## PERMANENT MAGNET DESIGN & APPLICATION HANDBOOK by Lester Moskowitz

Back in print! For now at least... The best magnet book I've seen.

Opening this book gives you the feeling you've opened the lab notebook of a famous magnet scientist. It's loaded with drawings, diagrams, equations, notes, hints, tips, circuit diagrams and more.

Chapters include brief history of magnets, terms and definitions, classification of magnets and materials, basic manufacturing processes, fundamentals of magnetism, general design considerations, leakage and fringing, circuit effects, exact design methods, and on and on.

You get all kinds of information and making, testing and using magnets from a circuit diagram for a 100 joule impulse magnetizer to suggestions for use in magnetic drives, motors and magnetos, magnetic welding benches and much more.

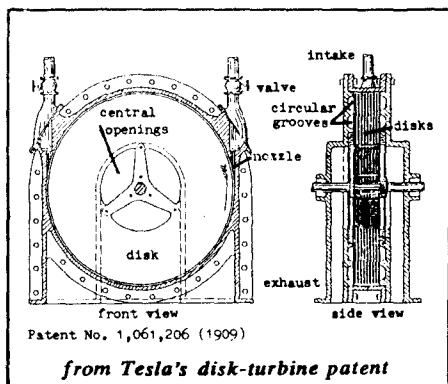
Expensive! But the best book of its type I've ever seen. Just the right mix of theory and practical application. Rare information. If you think you'll ever need it, get it now. It went out of print once, and is being reprinted (probably only for a short time) by another small publisher. I'm glad to see it's back. 9x12 hardcover 443 pages heavily illustrated

Cat. no. 1149

\$65.00

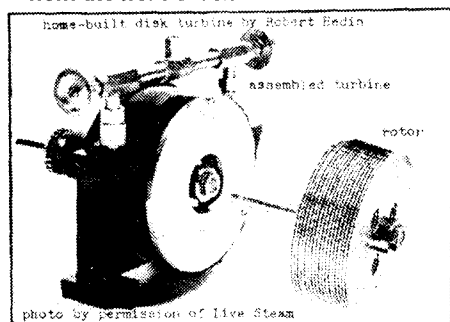


# TESLA'S LOST Inventions!



**TESLA: The Lost Inventions**  
by George Trinkaus

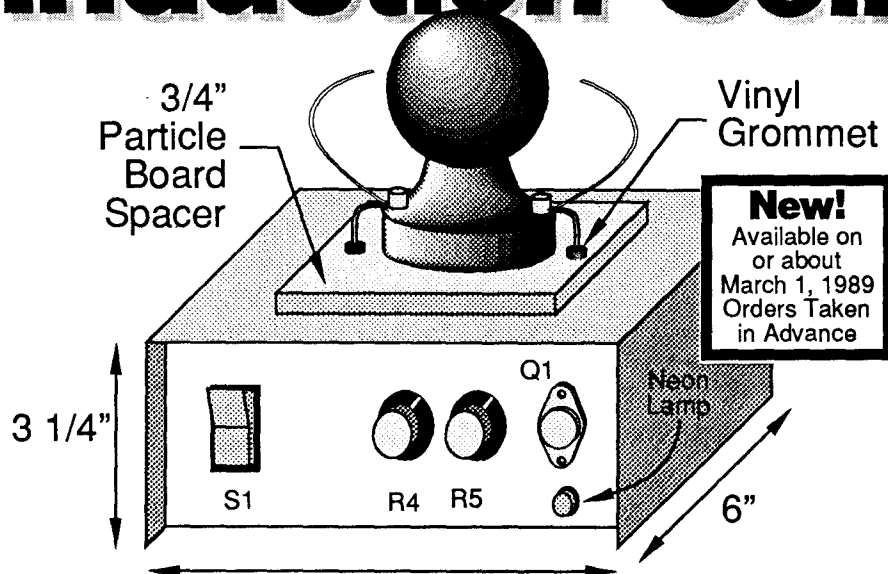
"Here are the suppressed inventions of Nikola Tesla all in one place rendered in clear English and in 42 illustrations. Tesla was famous at the turn of the century for inventing the alternating-current system still in use today. But his later inventions, documented in some 30 U.S. patents between 1890 and 1921, have never been utilized as Tesla intended despite their obvious potential for advancing in fundamental ways the technology of modern civilization. Among these lost inventions: the disk-turbine rotary engine, the tesla-coil electric energy magnifier, high-frequency lighting systems, the magnifying transmitter, wireless power, and the free-energy receiver."  
—from the front cover.



Like Trinkaus's other Tesla book, the only major criticism that can be leveled here is that the chapters are too short. On the other hand, even if each topic were expanded into a full-blown book, you would probably find Tesla so interesting that your curiosity would still not be satisfied.

Interesting, unusual information, especially if you're just beginning your study of Tesla. Fairly priced. 8 1/2 x 7 booklet 34 pages  
Cat. no. 748 \$5.95

# How to Build a 40,000 Volt Induction Coil



**New!**  
Available on  
or about  
March 1, 1989  
Orders Taken  
in Advance

**How to Build a  
40,000 VOLT INDUCTION COIL**  
by Walt Noon

Are you looking for a fast and simple way to generate high voltage? Then you should build this nifty little device. All of the parts should be available in your area, and depending how much experience you have building electronic equipment, you should be able to bolt it together in a few hours.

As you already know, the ignition coil in your automobile is the modern equivalent of an old time induction coil. It is nothing more than a transformer that converts low voltage into very high voltage. The points in your automobile replace the old fashioned spark gap. Every time the points open, a pulse of DC current hits the coil like a hammer hits a bell. The ignition coil "rings" like a bell and produces a burst of high voltage. If you "hit" the coil fast enough, the ringing seems to be continuous.

Walt Noon's circuit here replaces the spark gap and the points with a low cost solid state circuit. The circuit takes 110 VAC out of your wall and converts it into a string of DC pulses. The pulses are sent to the terminals of an ignition coil that you can purchase at your local discount store. Off the high voltage terminal comes a solid 40,000 volts that can be used for a variety of experiments including plasma globes and Kirlian photography.

The circuit, based on a 555 timer integrated circuit, provides pulses with adjustable power and frequency. This allows you to easily tune the pulses to the natural resonant frequency of the coil which will significantly increase the output voltage.

You get drawings of the unit, parts list, circuit diagram, photos and assembly instructions for the coil. You are expected to have at least some experience building modern electronic equipment with perf board. You get hints, tips and suggestions on where and how to make circuit modifications.

Probably best of all, Walt includes eight different experiments plus extensive details on Kirlian photography. He'll show you how to modify an inexpensive 35mm camera to take these unusual photographs in color and black and white. You also get six Kirlian photographs taken with the equipment he shows you how to build.

If you want to try your hand at high voltage experiments, this might be just the

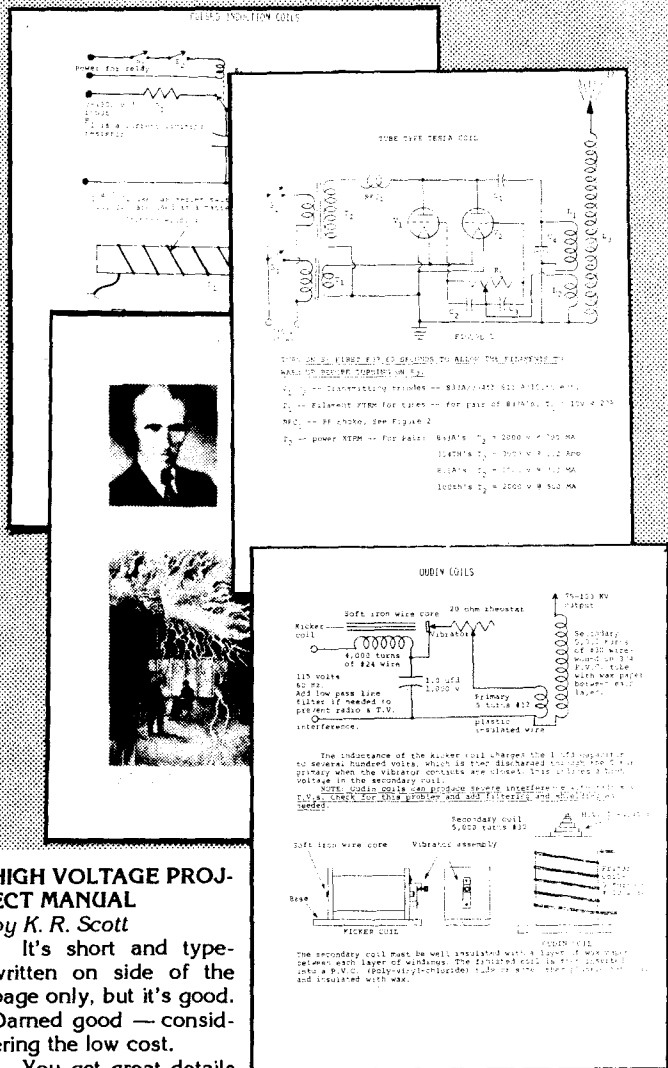
way for you to "cut your teeth", and it's something you'll be proud to show your friends. And it's a good way to literally shock the pants off them! Get a copy of this. It's unusual. It's well written. And it's inexpensive. You'll like it. 5 1/2 x 8 1/2 booklet 24 pages

Cat. no. 844

\$4.95



# High Voltage Projects!



## HIGH VOLTAGE PROJECT MANUAL by K. R. Scott

It's short and type-written on side of the page only, but it's good. Darned good — considering the low cost.

You get great details on interesting high voltage projects. The contents page lists—

- voltage doublers and multipliers
- Marx impulse generator
- spark coils
- pulsed induction coils
- Oudin coils
- Tesla coil theory
- Tesla's 1892 coil design
- component design info
- construction hints
- 45 kv Tesla Coil
- 125 kv Tesla Coil
- 150 kv Tesla Coil
- 275 kv Tesla Coil
- 375 kv Tesla Coil
- Tube type Tesla Coil design
- Kirlian photography
- High Voltage Piezoelectrics
- Jacobs ladder
- HV discharges in partial vacuum
- spark length graph
- wire table

You must realize that these topics may be no more than a single page. But you get details, bits and pieces, and more. And remember the cost is low. I wish this booklet were bigger, but I guess I should be thankful that it exists at all. Interesting. Quite interesting. Order a copy. 8 1/2 x 11 booklet 23 pages  
Cat. no. 366 \$4.95

## Nikola Tesla Writings

# CONTENTS

### Part I — Polyphase Currents

- Biographical and Introductory
- A New System of Alternating Current Motors and Transformers
- The Tesla Rotating Magnetic Field — Motors with Closed Conductors — Synchronizing Motors — Rotating Field Transformers
- Modifications and Expansions of the Tesla Polyphase Systems
- Utilizing Familiar Types of Generators of the Continuous Current Type
- Method of Obtaining Desired Speed of Motor or Generator
- Regulating for Rotary Current Motors
- Single Circuit, Self-Starting Synchronizing Motors
- Change from Double Current to Single Current Motors
- Motor with "Current Lag" Artificially Secured
- Another Method of Transformation from a Torque to A Synchronizing Motor
- "Magnetic Lag" Motor
- Method of Obtaining Difference of Phase by Magnetic Shielding
- Type of Tesla Single-Phase Motor
- Motors with Circuits of Different Resistance
- Motor with Equal Magnetic Energies in Field and Armature
- Motors with Coinciding Maxima of Magnetic Effect in Armature and Field
- Motor Based on the Difference of Phase in the Magnetization of the Inner and Outer Parts of an Iron Core
- Another Type of Tesla Induction Motor
- Combinations of Synchronizing Motor and Torque Motor
- Motor with a Condenser in the Armature Circuit
- Motor with Condenser in One of the Field Circuits
- Tesla Polyphase Transformer
- A Constant Current Transformer with Magnetic Shield Between Coils of Primary and Secondary.

### Part II — Tesla Effects with High Frequency and High Potential Currents

- Introductory — The Scope of the Tesla Lectures
- The New York Lecture. Experiments with Alternate Currents of Very High Frequency, and Their Application to Methods of Artificial Illumination, May 20, 1891
- The London Lecture. Experiments with Alternate Currents of High Potential and High Frequency, February 3, 1892
- The Philadelphia and St. Louis Lecture. On Light and Other High Frequency Phenomena, February and March, 1893
- Tesla Alternating Current Generators for High Frequency
- Alternate Current Electrostatic Induction Apparatus
- "Massage" with Currents of High Frequency
- Electric Discharge in Vacuum Tubes.

### Part III — Miscellaneous Inventions and Writings

- Method of Obtaining Direct from Alternating Currents
- Condensers with Plates in Oil
- Electrolytic Registering Meter
- Thermo-Magnetic Motors and Pyro-Magnetic Generators
- Anti-Sparking Dynamo Brush and Commutator
- Auxiliary Brush Regulation of Direct Current Dynamos
- Improvement in Dynamo and Motor Construction
- Tesla Direct Current Arc Lighting System
- Improvement in Unipolar Generators.

### Part IV — Appendix on Early Phase Motors and the Tesla Oscillators

- Mr. Tesla's Personal Exhibit at the World's Fair
- The Tesla Mechanical and Electrical Oscillators.

# Inventions, Researches & Writings of NIKOLA TESLA

*Incredible inventions!  
AC Power, High Voltage,  
High Frequency,  
Oil Condensers,  
even magnet motors!*

## Inventions, Researches & Writings of NIKOLA TESLA

*by Thomas Commerford Martin  
reprinted by Lindsay Publications Inc*

The greatest world's fair ever constructed was underway in Chicago in 1893. More electricity and more electric lights were used in the fair than in the entire city of Chicago. It was the electric age, and Edison was doing with commercial battle with Westinghouse and its star, Nikola Tesla.

In 1893, this volume, a comprehensive collection of Tesla's work to that point, was published. And although it is now quite rare, you can have a high quality reprint for a small fraction of what cost us to obtain an original copy.

Most people think of lightning generators when they think of Tesla, but that's a very narrow perspective. People should think of alternating current. Tesla created the power system used throughout the world today — one that operates at 50 and 60 cycles per second.

Tesla experimented with other frequencies, iron and air core transformers, as well as motors and generators. Tesla didn't just one day decide he was going to build his famous lightning bolt generator. It was but another step in a series of experiments that had begun years before. Here you get a complete record of this research up to 1893.

It's all here — the AC experiments and inventions that lead Tesla to experiment with ever higher voltages and frequencies, the neon

*Rare 1893  
Tesla  
book now  
back in  
print! All  
Tesla work  
to that  
date!*

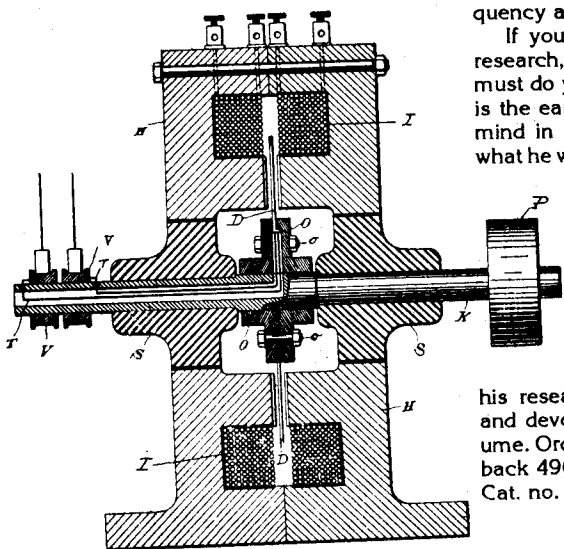
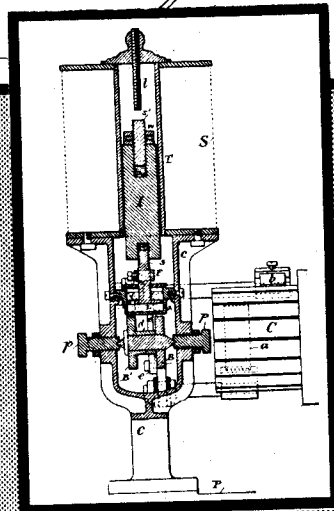
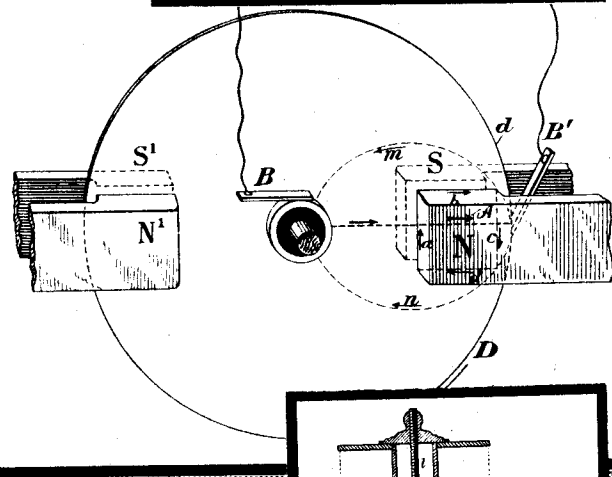
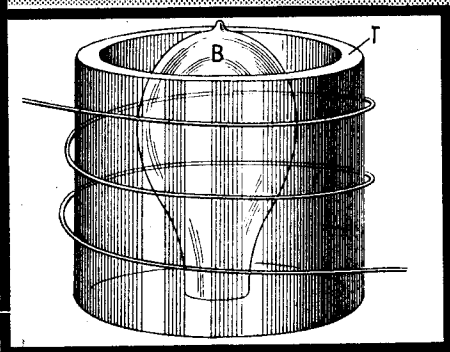
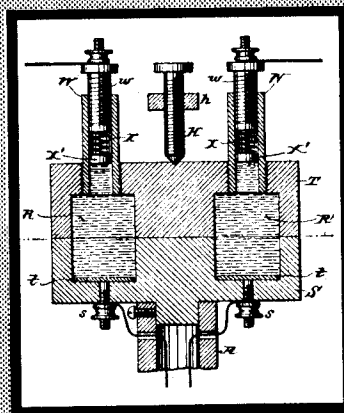
tubes and fluorescent lights, unusual high frequency alternators and even magnet motors.

If you want to carry on Tesla's unusual research, you must walk in his footsteps. You must do your homework. Here in one volume is the early work that will help you get your mind in sync with his and perhaps suggest what he was thinking at the time, and give you ideas of where to take his experiments.

Every Tesla fan, every high voltage experimenter, and every electrical engineer should have a copy of this classic book. Just as much as Edison, Tesla created the world in which we live today.

Now you can study the results of his research, attend his special exhibitions, and devour his lectures, with this single volume. Order a copy today! 5 1/2 x 8 1/2 paperback 496 pages  
Cat. no. 4902

\$16.95



## SPECIAL HARDCOVER EDITION

A small fraction of the print run has been beautifully hardcover bound for libraries, serious collectors and researchers. It is possible the hardcover edition may be unavailable for extended periods of time.

Cat. no. 4910

\$26.95



# EXPERIMENTAL

**Two volumes loaded with incredible science machines and projects!  
...a pair of books Tom Edison probably would have enjoyed!**

## EXPERIMENTAL SCIENCE

by George M. Hopkins

Fantastic! There is no other way to describe this incredibly illustrated two-volume set from 1906. It is certainly worth having.

In the late 1800's when major new inventions like the electric light, telephone, and phonograph seemed to appear almost everyday, and when new scientific advances revolutionized everything from photography to medicine, "Scientific American" magazine was an important source of details.

A regular column written by Hopkins offered magazine readers a chance to build equipment and do their own experiments, and in effect, "get in on the action." Science wasn't something done exclusively in a laboratory, it was for everybody.

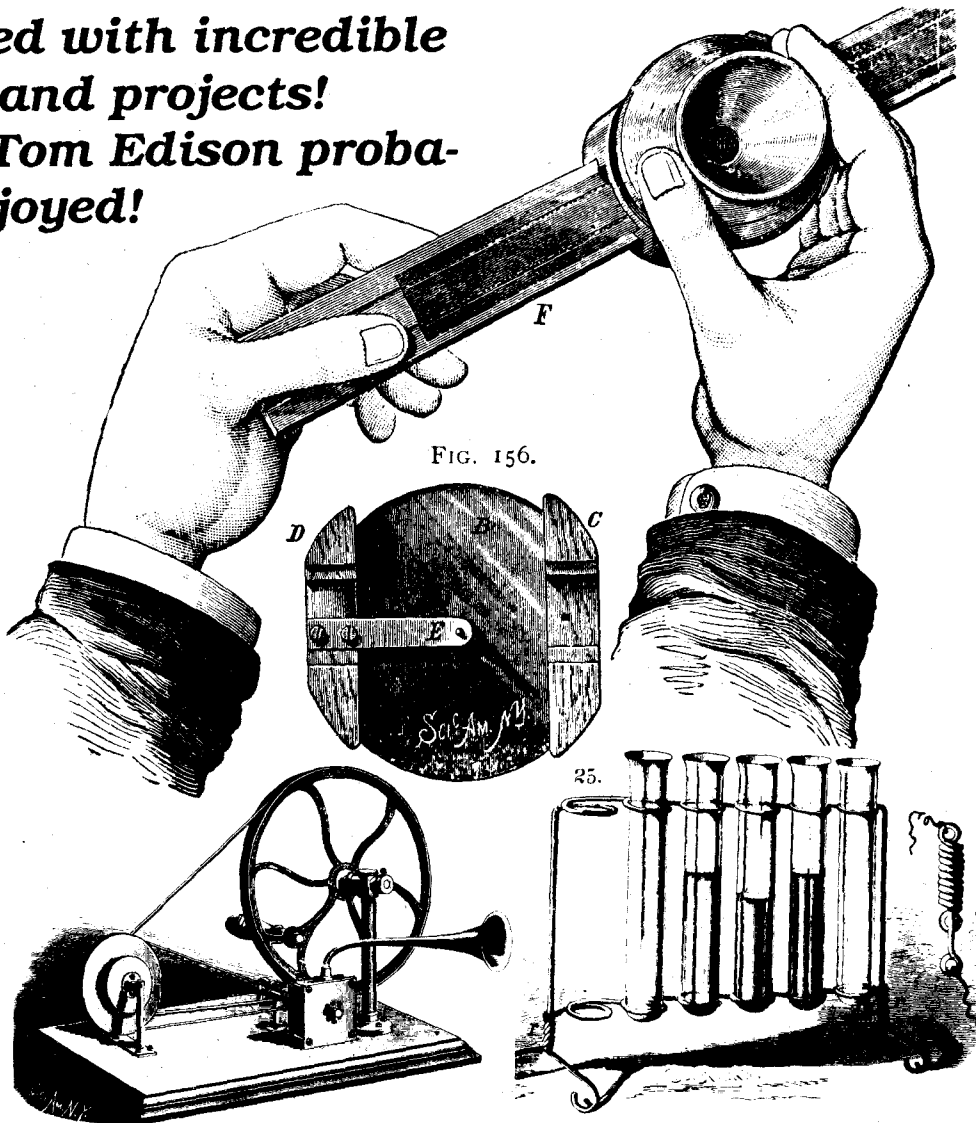
Starting about 1889, Hopkins began collecting these practical how-to columns from "Scientific American" and reprinting them, at first in just a single volume. By 1906 this 25th edition had so much material, it had to be split into two volumes. And what a pair of volumes they are!

You'll find some of the most fantastic wood engravings ever, illustrating experimental equipment of all types.

Volume One consists of nineteen chapters on rest, motion, force, gyroscopes, liquids, gases, sound, heat, light, polarized light, microscopy, photography, magnetism, frictional (static) electricity, dynamic electricity.

Build a gyroscope, Foucault's pendulum, a simple hydraulic press, a hydraulic ram, simple air pump, Geissler tube, a recorder for sound vibrations, device for production of sounding waves, a simple phonograph, centrifugal siren, and Norremberg Doubler. And these are just a few of the projects in only the first half of the first volume!

You can build a simple microscope and accessories, or a simple camera



with plate holder, make Daguerreotype photos like those from the 1840's (dangerous), experiment with magnets, static electricity, build all kinds of batteries, a battery that converts heat directly into electricity, build bells, electromagnets, and even a 1/4 hp electric motor.

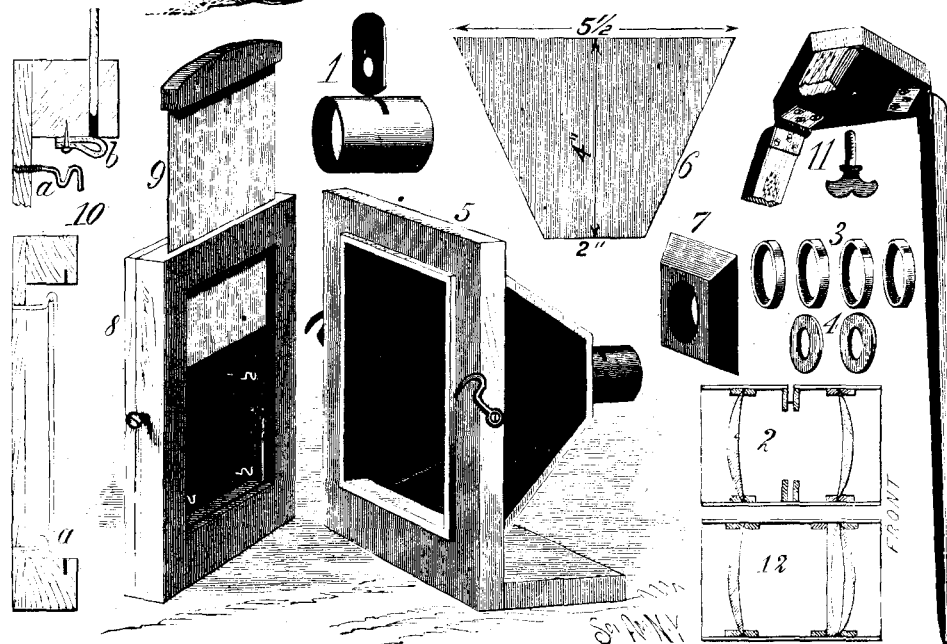
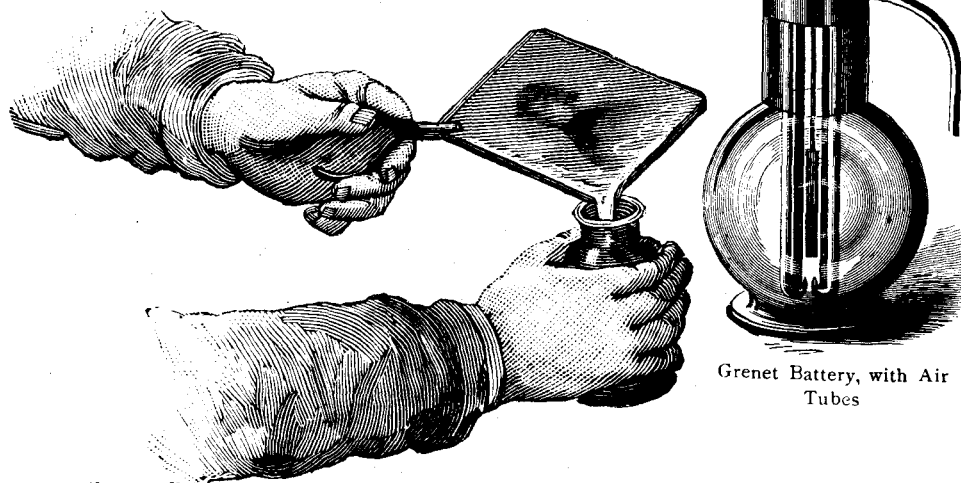
Volume Two will take you into more electricity by investigating AC electricity, arc lamps, high voltage induction coils, and Geissler tubes. You can build a telephone. Build a magic lantern and perform a variety of interesting projections.

You'll get practical how-to on blowing glass, making lenses, etching glass,

making test tube racks and the like, making and using a crucible furnace, sand casting, making carbon rods and plates, and more.

You'll be shown how to perform a variety of scientific parlor tricks that will amuse anyone who has never seen them. Discover scientific uses for the phonograph, build an opaque projector, and a simple acetylene gas generator. Try your hand at these super cold liquid air experiments, or new advances in photography including color photography, divining rods and metal detectors, long distance telephony, new wireless telegraphy, building an electric clock, high voltage experiments,

# SCIENCE



even poly phase electricity!

If you haven't guessed by now, this is both an introduction to physics and simple directions for building strange mechanical test equipment that has been replaced by complex electronics these days.

The how-to you get is not overly detailed. You're expected to have some mechanical ability. You *WILL* get excellent illustrations that will show you almost everything you need to know. Any additional secrets are pointed out in the text.

This two volume set is the nuts for anyone who is looking for interesting models and equipment to build. If you

want to build and run scientific equipment that hasn't even been seen in decades, you should have this. A kid who is really interested in building a unique science fair project will love it. Someone who loves old books and engravings will treasure it. And just about anyone who loves machines will get hours and hours of enjoyable reading.

It's impossible to reveal the scope and beauty of these two books in the limited space this catalog provides. But take my word for it, these are fascinating books. Top quality. Expensive, but worth the price. Look them over carefully.

**Over a thousand pages!**

**Wall-to-wall projects!**

**Incredible apparatus!**

**Great woodcut illustrations!**

**Complete 1906 edition!**

## Researcher's favorite

The existence of these books was pointed out to me several years ago by an avid experimenter who has built Tesla coils and Wimshurst machines, researched perpetual motion, free energy devices and all types of unorthodox subjects.

He found *Experimental Science* to be a very valuable reference, but because of its rarity, he hadn't been able to buy a set of his own. When I told him that I was going to take a chance on reprinting the two volume set, he jumped for joy. Now he can afford his own set. So can you.

We're confident you'll find *Experimental Science* as much fun and as useful as we have.

## EXPERIMENTAL SCIENCE

### Volume One

5 1/2 x 8 1/2 paperback 560 pages  
Cat. no. 4490 \$19.95

## EXPERIMENTAL SCIENCE

### Volume Two

5 1/2 x 8 1/2 paperback 532 pages  
Cat. no. 4503 \$19.95

## PACKAGE - Paperback

### Volumes One & Two

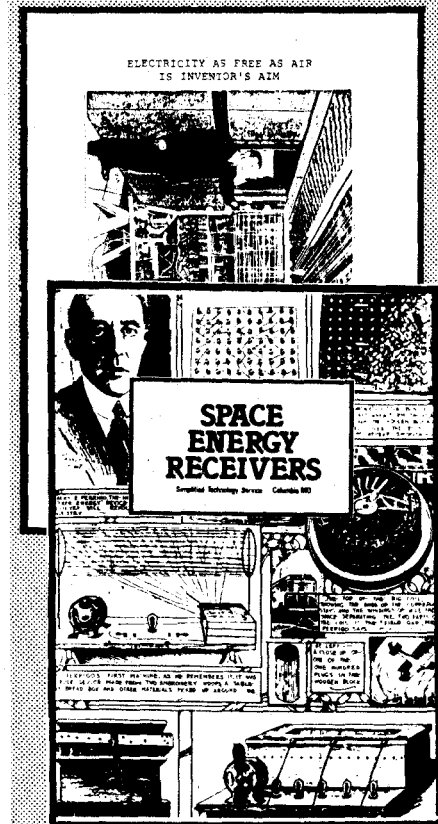
Purchased separately: \$39.00  
Cat. no. 926 \$34.95

## SPECIAL HARDCOVER OFFER

Both volumes in sewn hardcover bindings for libraries and collectors. Available in sets only. Relatively few hardcover volumes have been printed. Availability may be unpredictable.

Cat. no. 927 \$48.95

# Space Energy RECEIVERS



## SPACE ENERGY RECEIVERS

by Simplified Technology Service

"Space energy receivers... may be defined as a class of devices which apparently collect electrical energy from the surrounding space without applied force, by some process other than chemical or mechanical action..."

What? Pull energy out of thin air? That's what they claim. Do they work? At least a few were built to defraud gullible investors. BUT! There IS energy out there, and extracting it would be comparable to geothermal power. You're not creating energy, just tapping existing reserves.

Do the machines described here really work? Maybe. Maybe not. Whether you believe they do or not is of little importance because either way you'll find this interesting reading. You'll enjoy the photos, diagrams, and claims.

You'll learn about Tesla's patent, the Moray unit, the Yglesias machine, the Gustav Weise receiver, the Meyers machine, Hartwig's pendulum observations, Perrigo's fantastic machine seen in Congress, the Mushroom generator, and excerpts from a formerly classified British report on a world War II German machine, that is now declassified.

In addition, you get reference books to read, a list of experimenters, and other tidbits. It's quite interesting, and if there is one complaint I have, it's that "Receivers" is just not long enough. I think you'll like it. Very unusual! Order a copy. 8 1/2 x 11 booklet, 21 pages. Cat. No. 882 \$4.50

# Build a Tesla Coil!

## TESLA COIL

by George Trinkaus

Here's another Tesla coil book. It's a bit expensive for what you get, and much of it is a repeat, but there are some bits and pieces that I haven't seen.

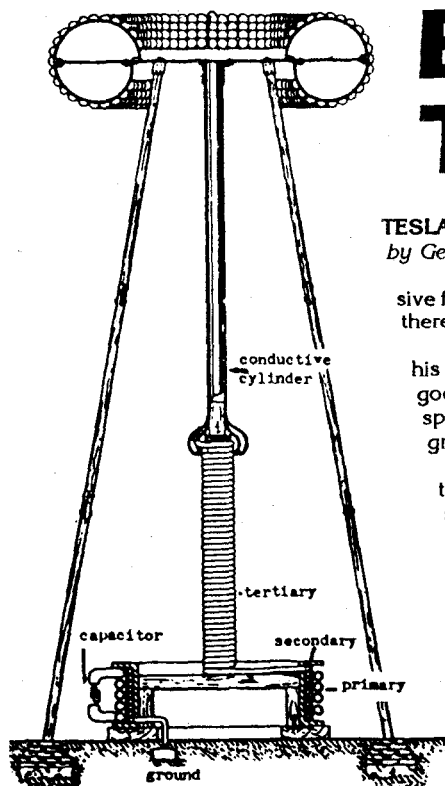
You get a brief overview of Tesla, his career and his coil. Then you get instructions on building a good sized coil using a neon transformer and a spark gap to drive the primary. The detail is not great but is probably adequate.

You get brief discussions and details on capacitors, glass-and-foil capacitors, oil capacitors, salt-water capacitors, series and rotary spark gaps, a schematic for a 6L6 vacuum tube driven coil, construction notes, hazards, Tesla lighting, ozone disinfectant, and magnifying transmitter. All this in 21 pages!

Obviously, the booklet does not go into great detail, but there are ideas and clues here that you might not have thought of yet that might be worth the price and then some. You'll have to decide. Consider it carefully. 7 x 8 1/2 booklet 21 pages

Cat. no. 741

\$4.95



# Build a METAL LOCATOR and search for treasure!

## BUILDING METAL LOCATORS

A Treasure Hunter's Project Book

by Charles D. Rakes

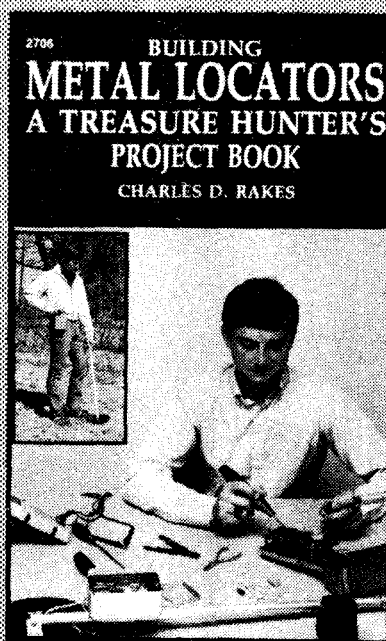
Metal detectors are fun to play with — profitable, too, if you "shoot" coins. You can locate "treasure", tools that kids drag into the backyard and lost, studs and pipes in the walls, or frisk your mother-in-law to see if she's carrying a handgun when she comes over for Thanksgiving dinner.

BFO metal detectors are neither hard to design nor build. And chapter two will show you how to build one. But it's the plans for all the other high-performance specialized detectors that make this book shine. You'll be shown how to build balance inductance locators, transmitter/receivers, coplanar VLF locator, and some other unusual designs. You even get a chapter on how to begin treasure hunting.

Believe it or not, the circuit board can be the easiest part of a detector to build. Winding coils is usually more difficult, but you will be shown all the secrets and taught all the techniques. If you like to build useful electronic projects, try this! You can build a detector for little money that will perform as well as the high priced models. Interesting book. Rare information. A book worth having. 5 1/2 x 8 1/2 paperback 116 pages

Cat. no. 352

\$9.95





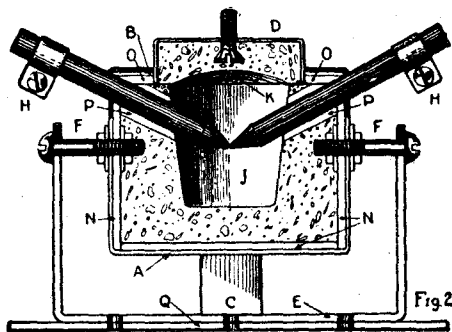
# UNUSUAL PROJECTS!

**MECHANICS NOTE-BOOK 20**  
Old Magazine Plans  
reprinted by Lindsay  
Publications

Just after the first world war, unusual, often downright strange magazines appeared on the market to take care of the public's hunger for news on inventions and scientific experiments.

After years of searching and many dollars expended, we managed to accumulate a couple of dozen copies of various magazines such as "Everyday Engineering Magazine", "Electrical Experimenter", "Practical Electrics" and "Science and Invention".

Although most of the articles are ridiculously funny because of their inaccurate theory, wrong conclusions, or prediction of bizarre future inventions, there are a few really inter-



grinder having a 6"x6" table.

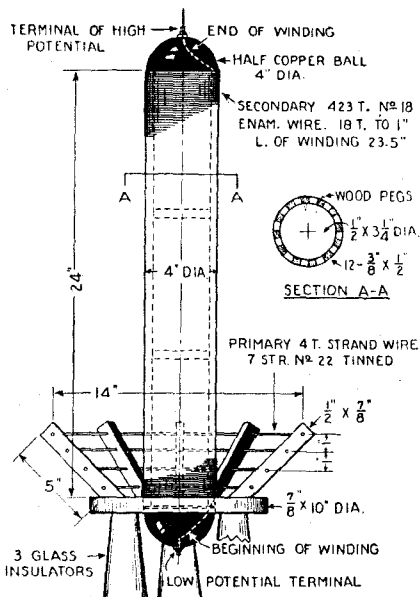
You get plans for a universal lathe attachment that the author claims is good for surface grinding, indexing, shaping, planing and milling. Build yourself a one-lung one-horsepower overhead valve gas engine from scratch.

And you get plans for a 24" Tesla coil, parts of which have been reprinted many times over the years, including in our own "Tesla Coil Secrets". Here, you get every word and every drawing. Nothing has been left out.

We can't tell how many of these plans were actually built and proven. At the very least, they'll give you many new ideas. This is detailed how-to from magazines published from September 1918 to February 1926.

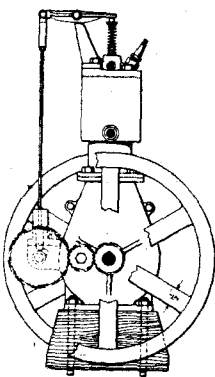
It has been long, difficult, and expensive process to accumulate this information. And although you may never get your hands on the originals, at least you can get the plans they contained. Any builder will find this fascinating reading. Get a copy. 8 1/2 x 11 booklet 22 pages

Cat. no. 848



esting construction articles that are still useful today. In this over-size notebook you get the winners.

Build a guide that turns a common file into a remarkably good milling machine. Get two different sets of plans for building unusually sensitive laboratory chemical balances. Build a small electric arc furnace with water rheostat capable of reaching temperatures of over 6000° F. Build a small surface



# Lakhovsky Multi-Wave Oscillator!



I have one request, however, that as we build this record even be tempted to change a few details in correspondence and e-mails, even see its use. It is most important that as the details related to building materials should be available on people's time, change, and

CC-BY-NC-ND 4.0 International

[illegible][illegible]

9. P. L. T. 10. The first two are

1. off  
 Detect  
 1  
 Time  
 Ford 2 Cell  
 100VAC  
 100VAC

29" OD, 23 turns #16 bare  
wire, spaced out 1 in.

"Night"  
wound

equipment, but I  
stake my health  
on it. Our

else's on it. Quack  
cine machines were  
where in the 1920s.  
This could well be

In this typewritten report you get history, wiring diagrams,

mented" cases of cure.

the Lakhovsky patent series of reprinted magazines on the use of frequency waves to cure

Modern physicians hope that electrical fields could speed the healing of wounds in some instances. Perhaps this method

some merit, or perhaps a hoax. Maybe it's another pressed invention. You'll find it interesting. You'll find it interesting.

ing — a very unusual com-  
material. Get a copy. 8  
spiral bound 156 pages

Cat. no. 357

**\$15.95**

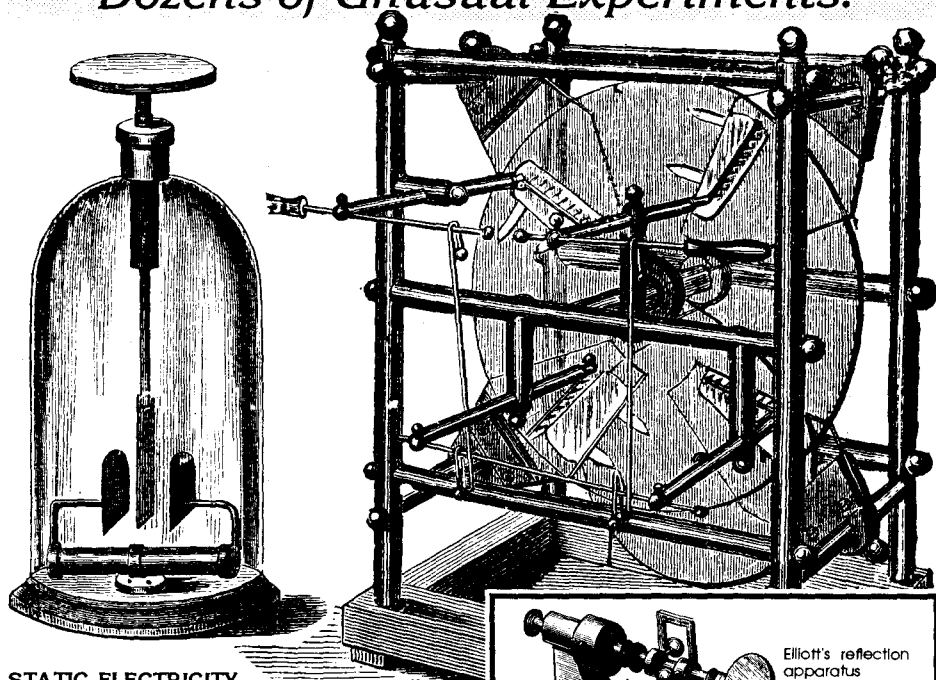
**LAKHOVSKY MULTIPLE WAVE  
OSCILLATOR HANDBOOK**  
*compiled by Thomas J Brown*

Supposedly sometime before World War II, Russian experimenter Lakhovsky asked Nikola Tesla to help him design a high voltage generator that could produce electrical energy at many different frequencies simultaneously. A model of the machine was tested by physicians at the time who found that it not only had a 98% cure rate for terminal cancer, arthritis, and other "hopeless" diseases, but that it could rejuvenate plants and animals as well.

No doubt the oscillator works and is an interesting piece of

# STATIC ELECTRICITY!

*Unusual High Voltage Equipment!  
Dozens of Unusual Experiments!*



## STATIC ELECTRICITY

by J. H. Pepper  
reprinted by Lindsay Publications

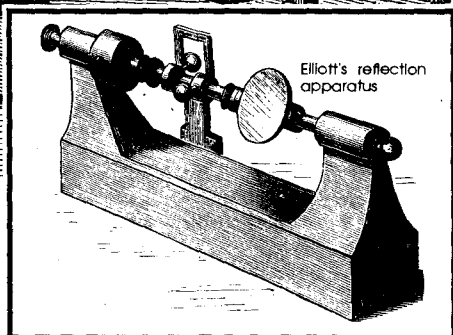
Static electricity is a nuisance when you walk across a carpet and then watch a blue flame jump out from a doorknob to burn off the end of your finger. But this kind of electricity can also be fascinating.

Back in the 1880's when people knew little about current electricity, static or frictional electricity was a scientific curiosity in laboratories and parlours. Giant lightning generators were built by amateurs and educators and bizarre experiments performed.

From Pepper's "Cyclopaedic Science Simplified" we've reprinted the chapter entitled "Electricity, Frictional or Static", one of the best textbook discussions we've found yet.

You get a detailed discussion of electroscopes, 17 electroscope experiments, Cavallo's Cylinder Electrical Machine, the Royal Polytechnic Great Plate machine, Winter's electrical machine, the Holtz machine, the Electric Well experiment, experiments in induction, charge storage techniques, lengthy discussion of Leyden jars, the Leyden battery, followed by another thirty experiments including Cuthbertson's Balance Electrometer, the electric bomb, Harris's thundercloud needle, and a couple of machines for generating high voltage with a steam jet! And there is much more.

Everyone seems to be building electronic



Elliott's reflection apparatus

devices with integrated circuits. No one seems to know about old time electricity. Here, in one volume are forgotten electrical devices, principles, and experiments. You'll find page after page of unusual information and illustrations.

There are a lot of old science textbooks available in old bookstores for little money. But a really a good discussion of static electricity like this one is hard to find.

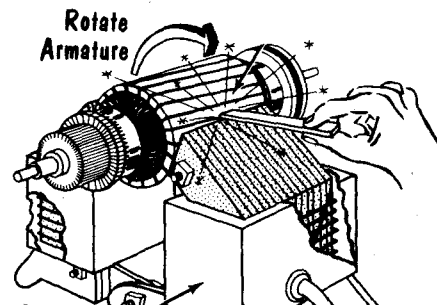
Although this is not really a cookbook for building equipment, the wood engravings are quite detailed, and the text describes the equipment thoroughly enough that you could probably build the devices without great trouble. This is a great source for unusual science fair projects.

If you like to explore old scientific principles, build unusual apparatus, or just impress your friends, consider a copy of this unusual book. I think you'll like it. 5 1/2 x 8 1/2 paperback 88 pages

Cat. no. 4783

\$5.95

# SMALL MOTORS & Their Repair

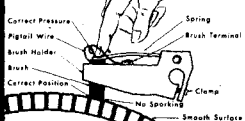


## MOTOR TESTING

### Testing Capacitor-Start and Run and Repulsion Motors

Capacitor-start and run motors can be checked similarly to split-phase and capacitor motors. In addition, this motor contains a two-position switch which must also be checked if the motor runs only when hand started. When this is the case, check the end play of the shaft. If excessive, it may mean that the contacts of the two-position switch are not getting current. To

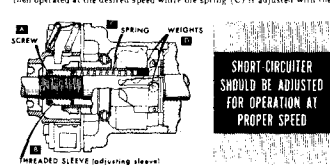
### Setting Brush Contact and Checking for High Speed



## MOTOR TESTING

### Testing a Reversible Motor

If the motor being checked is an electrically reversible repulsion motor and not starting is the fault, again the cause may be the wrong line connection. Refer to the proper connection diagram to check and remedy this. A fault occurring fairly often in repulsion motors is in the short-circuiter and brush-lifter found in repulsion-start induction-run motors. The short-circuiter should operate so that its short-circuiting action takes place with the commutator rotating at about 80% of full-load speed. If it doesn't, it may be readjusted. To ensure proper operation, adjustments must be made with the motor operating under rated load. To adjust the speed at which the weights operate, proceed as follows: Loosen screw (A). To raise operating speed, rotate threaded adjusting sleeve (B) clockwise; to lower operating speed, turn sleeve counterclockwise.



SHORT-CIRCUITER SHOULD BE ADJUSTED FOR OPERATION AT PROPER SPEED

Threaded adjusting sleeve (B). Since this may throw off the previous adjustment on the weights, a compromise must be made between the two adjustments until satisfaction is obtained.

Starting failures in d.c. and universal motors can occur for reasons similar to those given for repulsion motors or any other motor employing commutator action. In the two-winding type of universal motor (distributed-field compensated type), the brushes may be off neutral, which in this case is off the compensating winding. Reversing brushes is described in the section on brush care and maintenance.

109

## FRACTIONAL HORSEPOWER MOTORS and REPAIR

by Gerald Schweitzer

When one of your shop motors fails, chances are this book can show you how to fix it. Fractional HP is loaded with top-rate illustrations, exploded views, wiring diagrams of the windings, starters, and protection devices found on almost all small motors.

You'll learn about induction motors, split-phase, capacitor, repulsion, shaded-pole, universal, and three-phase motors. Learn about testing, maintenance, control and protective devices. Covers simple repairs, but not rewinding procedures. Get a copy of this valuable reference book for your technical library today! 6 x 9 168 pages.

Cat. No. 32

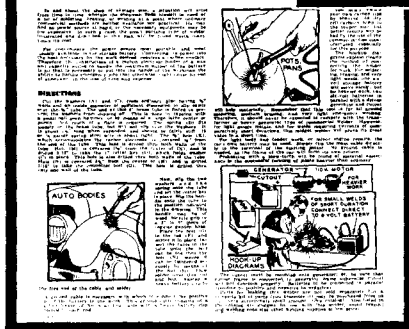
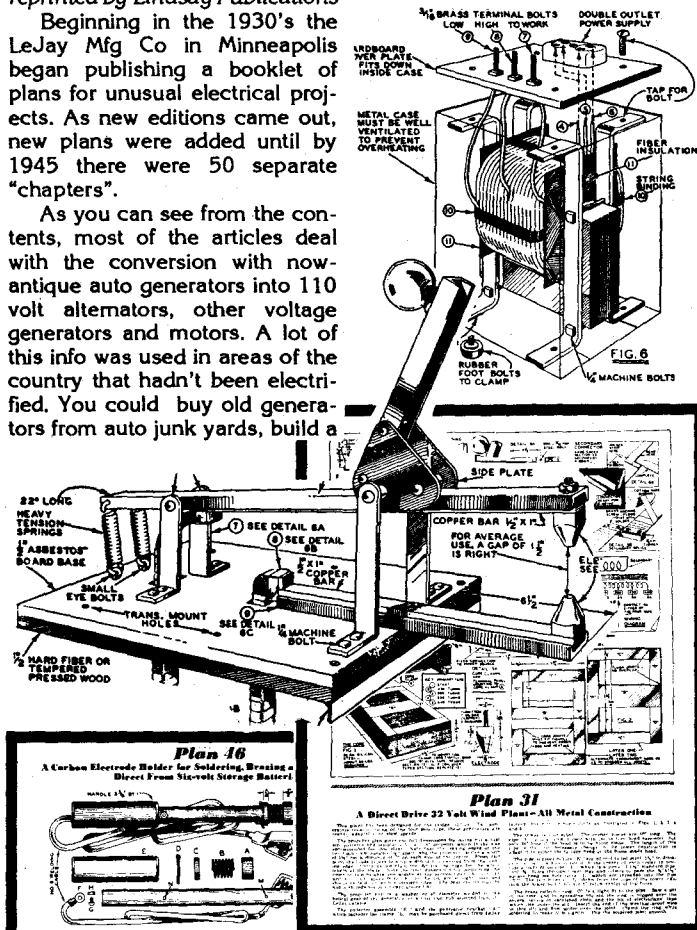
\$9.95

# LeJay Manual

LeJay Manual - 1945 Edition  
by Lawrence D. Leach  
reprinted by Lindsay Publications

Beginning in the 1930's the LeJay Mfg Co in Minneapolis began publishing a booklet of plans for unusual electrical projects. As new editions came out, new plans were added until by 1945 there were 50 separate "chapters".

As you can see from the contents, most of the articles deal with the conversion with now-antique auto generators into 110 volt alternators, other voltage generators and motors. A lot of this info was used in areas of the country that hadn't been electrified. You could buy old generators from auto junk yards, build a



windmill, repair old auto batteries, use the electricity generated to power homebuilt motors, welders and so on.

Most of the information in this booklet is now of limited value simply because you can't get the generators listed. But rewinding data, hints and tips provided can help you in other rewinding projects for other types of generators.

There ARE several projects in this booklet any one of which is

worth the entire price of the publication. For instance, you can build a small but useful spot welder powered by nothing more than a string of auto batteries. You get plans for an arc welder, a transformer spot welder, a carbon-arc torch, electric bicycle, a water wheel, windmills and more. And they're all well illustrated.

This is a manual worth having in your reference library. You may not be able to use all of the information, but you'll get so many ideas even from those chapters you can't use, that you'll find this manual to be worth many times its retail price.

Great ideas. Fun to read. Useful projects. Worth having. Order a copy! 8 1/2 x 11 booklet 32 pages

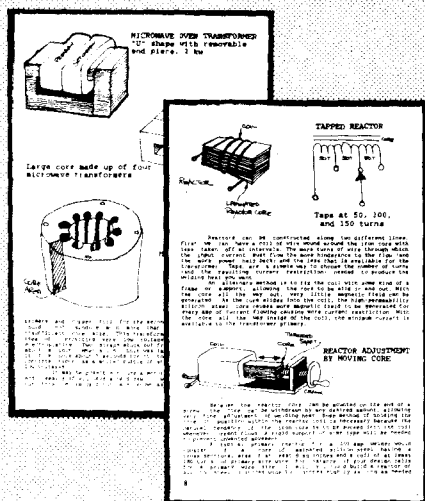
Cat. no. 20013

\$5.95

## Contents

- Plans for 110 Volt AC Light Plant made from Ford Model "T" Generator
- 200 Watt AC Generator for Automobile Made from Ford Model "A" Powerhouse
- A 6 Volt Slow Speed Generator (with plans for all-metal windmill)
- 6 Volt & 12 Volt Slow Speed Generators from Dodge "G" or "GA" Northeast Generator also from other Generators
- A 32 volt slow speed wind light Plant Generator
- One 32 Volt Motor, One 110 Volt Motor, One 32 Volt Generator, One 110 Volt Generator from Dodge Generator
- How to Make a Grinder, Series Motor, Constant Speed Motor, A Universal AC or DC Motor and a Soldering Iron
- A 75 to 110 Ampere Arc Welder Made from Dodge "G" or "GA" Generator. Also Dual Welders.
- Pendulum Type Fence Controller made from Ford "T" Coil
- Plans for Building a Complete Wind Light Plant Including Tower, Propeller and Generator Charger
- A 110 Volt AC Light Plant Generator
- A "B" Eliminator For Your Battery Operated Radio
- An Automobile Generator Booster Control
- A 6 Volt Slow Speed Generator from Standard 14 Slot 28 Bar Generator
- A 32 Volt Constant Speed Generator made from Ford "T" Generator
- A 2 Volt Slow Speed Generator from Standard 14 Slot 28 Bar Generator
- How to Convert A 6 Volt Cut-Out for 2 Volt Operation
- Directions for Repairing Your Own Batteries
- A Water Wheel Made from Old Automobile Wheel
- An Electric Outboard Motor from Old Ford "T" Generator
- A Gas Engine or Motor Driven Generator with Drawings in Detail
- An Armature Growler for Testing Auto or Slow Speed Armatures
- Two 32 Volt Series Motors from Dodge "G" or "GA" Generator
- A 32 Volt Heavy Duty Motor made from Dodge "G" or "GA" Generator
- A Bench or Breast Drill for 6, 12, or 32 Volts from "T" Generator
- A 6 Volt Motor for Drill Press, Washing Machines, etc. made from Model "T" Generator
- One 12 volt Motor and One 32 volt Motor Made from Model "T" Generator
- Two 6 Volt Generators from the Dodge, also general information
- A 110 V. or 220 VAC Portable Transformer for Arc Welding
- A 110 Volt Spot Welder — 1 Kw. Input Normal Draw 10 to 11 Amps
- A Direct Drive 32 Volt Wind Plant - All Metal Construction
- A Battery Spot Welder
- Armature Diagrams for Autolite, Bosch-Autolite and Bosch Generators
- Armature Diagrams for Delco, Delco-Remy, & Remy Generators
- Armature Diagrams for Ford A, B and V8 Generators
- 37, 38 Armature Diagrams for Northeast Generators
- 39 Armature Diagrams for Atwater-Kent & Dyneto Generators
- 39 Armature Diagrams for Leece-Neville Generators
- 40 Armature Diagrams for Wagner Generators
- 41 Armature Diagrams for Westinghouse Generators
- 42 Plans for Installing Lights on Your Tractor
- 43 Two Types 110 Volt AC Insect Exterminators
- 44 An Electric Scooter Using a 6 or 12 volt Battery for Power
- 45 An Electric "Go Bike" Using a 6 or 12 volt Battery for Power
- 46 A Carbon Electrode Holder for Soldering, Brazing and Light Welding Direct from Six-volt Storage Batteries
- 47 Ball Type Fence Controller Made from Ford "T" Coil
- 48 110 Volt AC 500 Watt Self Excited Generator from Dodge Model "G" or "GA" generator
- 49 110 Volt AC 60 Cycle 1/2 HP Synchronous Motor from Dodge Model "G" or "GA" Generator
- 50 An AC Welding Transformer Using Dodge Generator Coils
- Appendix Windpower Information, Definitions, etc.

# Build A Powerful Welder!



## How to Design and BUILD A 200 AMP WELDER

You can find many different welders on the market, so why even consider building one? Maybe you can save money. Perhaps you need something bigger than 200 amps and want to scale up a standard design. Of course, there's always the pride of being able to say you built it yourself. Or perhaps you would just like to know how they work.

Here's a publication for the mechanic (the non-electrician) — an introduction to transformer welders. You'll learn how transformers work, what is and is not important in the design of a welder transformer, how current is controlled, how an AC to DC rectifier bank is built, and more. You can design welders for 100, 200 or more amps using the principles revealed here.

You will *NOT* get complicated theory. You get information that has been learned by study and by doing, rather than from designing transformers as a profession. You'll learn the unique aspects of controlling heavy welder currents. This is information generally available nowhere else. After reading and studying this manual, you'll probably want to refer to other books which cover heavy transformer design theory, details on silicon steel, wire types, design problems and much more.

You can build a single transformer that can kick out heavy currents for welding, thawing pipes, AND, when used with a bridge rectifier, can be used to charge batteries, electroplate and more.

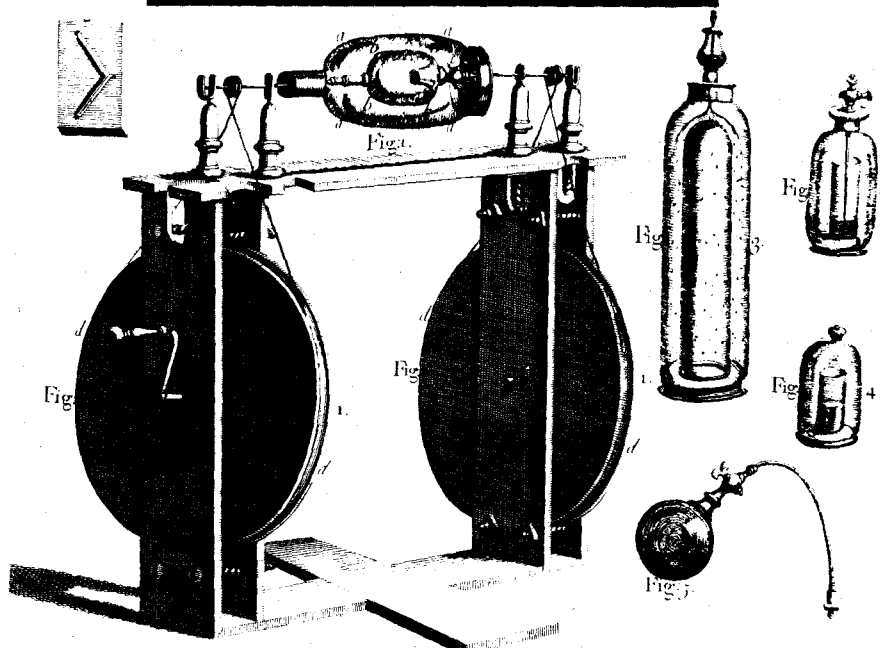
Get a copy of this hot little manual. You'll find that it is very clearly written and easy-to-read. This is the **FIRST** book you should consider before building or even possibly repairing a transformer welder. Order a copy today. 5 1/2 x 8 1/2 30 pages.

Cat. No. 85

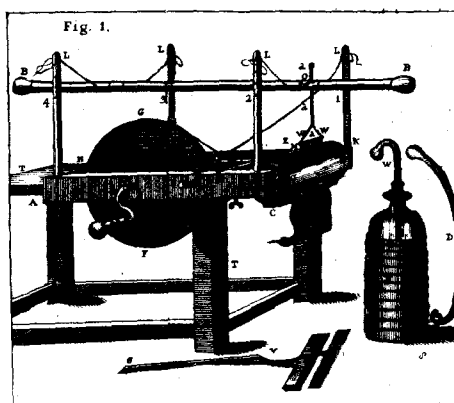
\$4.00

# Early Electrical Machinery!

## High Voltage Generators



*Rare machines rarely seen today!*

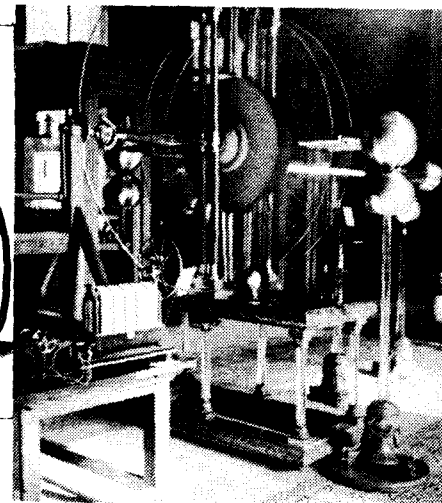


## EARLY ELECTRICAL MACHINES

by Bern Dibner

This is the story of electrical apparatus and experiments of the 1600's and 1700's. Obviously, it's about static electricity. You'll see rare woodcuts of unusual generators such those by van Marum, Watson, Franklin, Hauksbee and others. The Leyden jar is discussed. Even that lunatic that flew a kite in a thunderstorm... what was his name? Oh! Ben Franklin.... is discussed. See Richmann fry himself as he repeats the experiment!

This is not a how-to book, but the plates



are detailed enough that you could probably get good ideas for the construction of high voltage generators. The free energy and perpetual motion people believe there might be more to these machines than meets the eye. The rest of us would just like to build a machine to shock the glasses off grandmal

Quality paperback. Rare info. Well illustrated. Very interesting. 8 1/2 x 11 paperback 57 pages

Cat. no. 355

\$8.50



# ELECTRICAL DESIGNS!

## ELECTRICAL DESIGNS

Articles from American Electrician Magazine  
reprinted by Lindsay Publications

By 1901 people were getting tired of shocking the cat. They realized that electricity was more than a novelty, and that it could be put to use doing heavy work. But electric motors were scarce and very expensive. It's no wonder that half of the pages in this book are devoted to building and winding motors.

As interesting and useful as motor plans are to some people, the beauty of this volume are the plans in the back half. You'll learn how to build rheostats, reactive coils, ammeters, voltmeters, a simple wattmeter, and a galvanometer.

Build a storage battery, a Bunsen photometer to measure the candlepower of light bulbs, an arc lamp, and a Nemst lamp. Build a telephone, a dry cell, and handy tools for working on motor commutators.

If you're into high voltage, you'll find useful plans for an induction coil, a Tesla-Thompson coil, a high voltage condenser for use with Tesla coils, and a powerful Wimshurst machine.

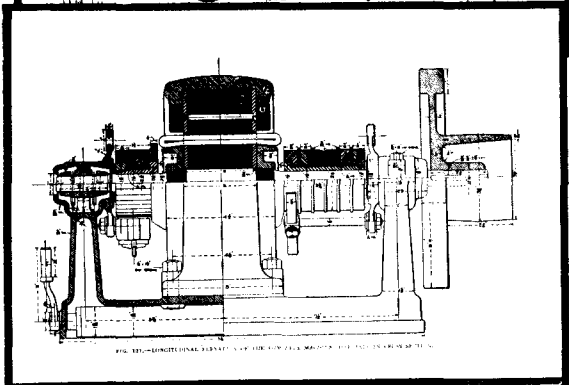
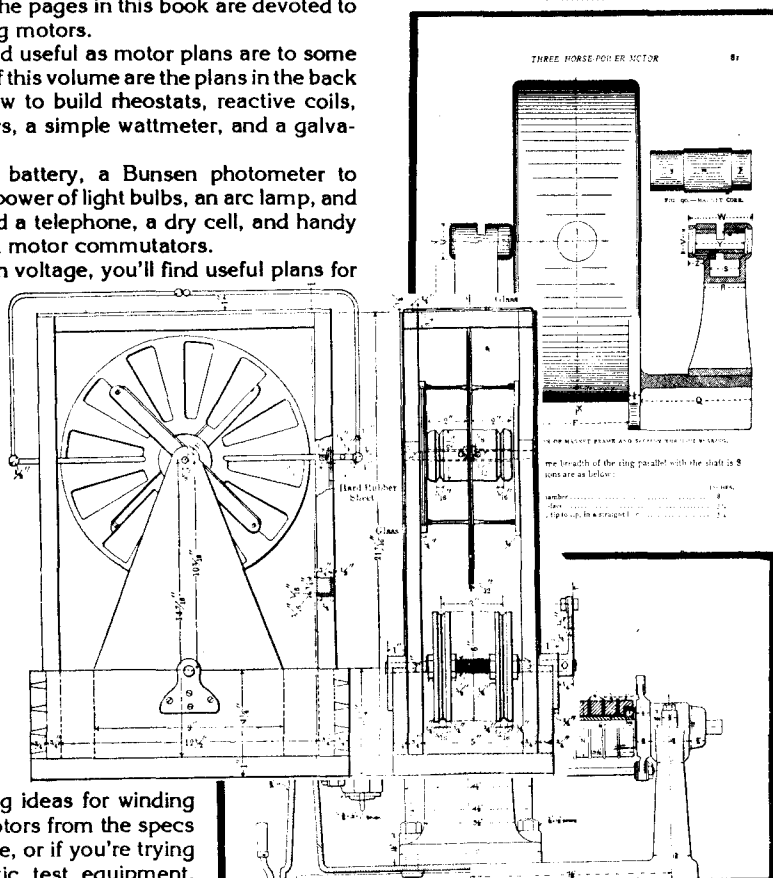
Every article is illustrated, and most drawings are dimensioned. The text is brief and to the point, but it should provide more than enough information for you to complete the project.

It doesn't matter whether you're interested in collecting ideas for winding modern working motors from the specs and instructions here, or if you're trying to build early exotic test equipment. You'll find something here to interest you.

With plenty of hard work you could probably build an entire electrical system: alternator, transformer, motors, rectifier, storage battery, lamps, telephone without having to buy any commercial parts other than wire! Think about it. Your friends would call you a modern day Thomas Edison!

Great ideas. Unusual plans. Plenty to keep your mind and hands busy. Get a copy of this! It's worth having! Order today. 5 1/2 x 11 paperback 262 pages  
Cat. no. 4228 \$11.50

## 34 Projects! From motors to Tesla Coils!

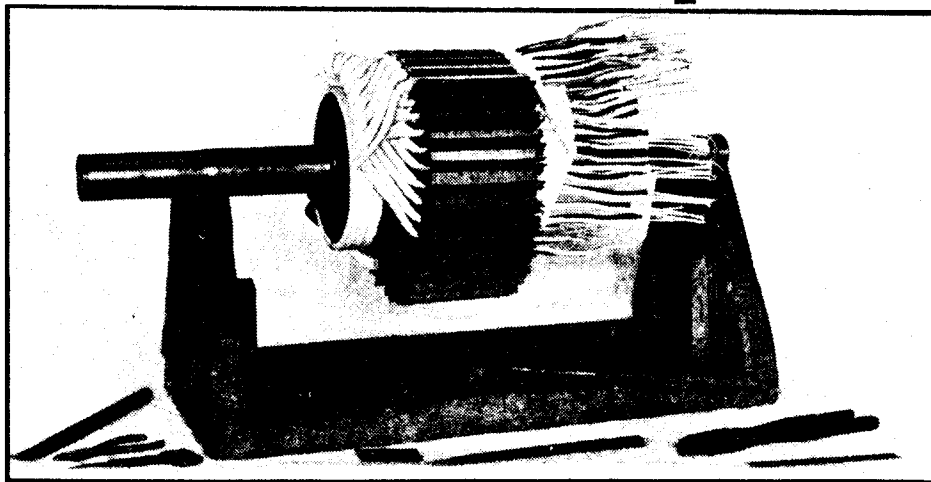


## You Get Plans for:

- one-sixth horsepower motor with drum armature
- one-sixth horsepower motor with ring armature
- one-fourth horsepower motor with drum armature
- one-fourth horsepower motor with ring armature
- one-half horsepower motor with drum armature
- one horsepower bipolar motor with drum armature
- one horsepower four polar motor with drum armature
- two horsepower four polar motor with drum armature
- three horsepower motor with drum armature
- one kilowatt combined AC & DC machine
- two kilowatt combined AC & DC machine
- four kilowatt combined AC & DC machine
- single phase rectifier
- universal alternator for laboratory purposes
- one-quarter horsepower induction motor
- simple transformer in four sizes
- construction of a reactive coil
- construction and calculation of rheostats
- simple voltmeters, ammeters, wattmeters
- d'Arsonval galvanometer
- sensitive mirror galvanometer
- Thomson Astatic Galvanometer
- cheap testing set
- construction and use of a photometer
- construction of a simple storage battery
- construction of a constant potential arc lamp
- an experimental Nemst lamp
- construction of an induction coil
- construction of a Tesla-Thompson high frequency coil
- condenser for extremely high potentials
- construction of a Wimshurst influence machine
- telephone transmitter and receiver
- construction of a dry battery cell
- some handy commutator tool



# Armature Winding and Motor Repair!



**Classic 1920 Text!**

## ARMATURE WINDING AND MOTOR REPAIR

by Daniel H. Braymer

From 1920 comes this motor rewinding book loaded with drawings and photographs that will show you how to build both AC and DC machines.

Chapters include: DC machines, AC machines, shop methods of rewinding DC armatures, making commutator connections, testing DC armature windings, operations before and after winding DC armatures, insulating coils and slots for winding, shop methods for rewinding AC machines, testing induction motor windings for mistakes and faults, adapting DC motors to changed operating conditions, practical ways for reconnecting induction motors, commutator repairs, adjusting brushes and correcting brush troubles, inspection and repair of motor starters and generators, diagnosis of troubles, methods to solve special troubles, tables and more.

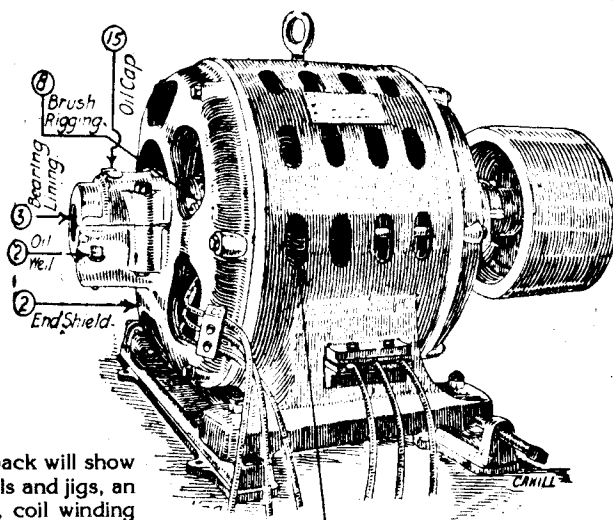
One special chapter at the back will show you how to build the special tools and jigs, an armature sling, a pinion puller, coil winding machine, a coil taping machine, commutator slotter, armature banding machine and more.

The motors described are large types used in factories. But the principles apply to the smaller motors you and I use. You'll learn how to reconnect induction motors for different voltages and phases, how to operate a DC motor as a generator and visa-versa, change the DC motor windings for different voltages, and more.

You'll be taught all the techniques from removing old windings and cleaning slots, to winding the coils, insulating the end connections, inserting the coils, painting the windings, relining split bearings, and much more. You

get data on all types of wave and lap windings, varnishing and insulating materials, and much more.

I make you no promises, but this is the logical place to start should you want to rewind a motor to particular voltage, wind a generator or alternator for use with a windmill or water-



wheel, rewinding a big generator for use as a welder, modify a DC motor for use in an electric car, and so on.

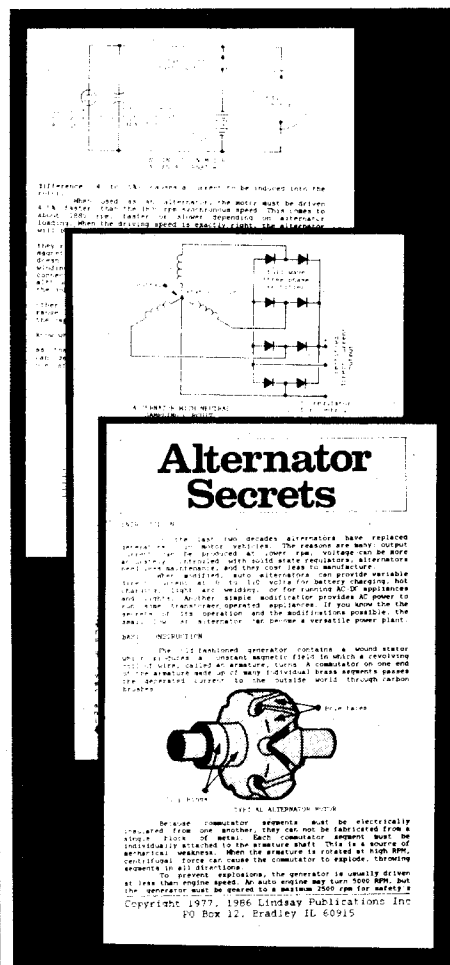
This is a beautiful book. You get over 500 pages of clearly written, wall-to-wall practical how-to with excellent illustrations. This is as good as, and in most cases, is much better than, any motor book I've carried in the past, regardless of price. It's a gem that should be in the reference library of most "machine freaks" (that includes you, son). Order one as soon as you can. 5 1/2 x 8 1/2 paperback 540 pages

Cat. no. 4384

\$16.95

# Alternator Secrets!

Get surprising amounts of power from a common auto alternator!



## ALTERNATOR SECRETS 2nd Ed

If you know the secrets of modification, you can get large amounts of power from a common auto alternator. You can build a portable powerplant driven by a gasoline engine to run brush-type power tools, lights, and AC-DC appliances at remote locations. You can hot-charge storage batteries, or even do light arc welding. Operation of the regulator is explained so that you can build a custom regulator, if needed, to provide regulated output voltages other than 12.

Learn how you can make almost an ordinary induction motor (like an old washing machine motor) put out 120 volts at 60 cycles without rewinding or internal rewiring. These secrets are worth the price of the booklet alone.

We've jammed a ton of information into 16 pages with small type to keep printing costs down so that we can keep the retail price the same as the old edition. Valuable, rare info! Get a copy. 5 1/2 x 8 1/2 booklet 16 pages

Cat. no. 80

\$3.00

# Storage Batteries Simplified!

## STORAGE BATTERIES SIMPLIFIED

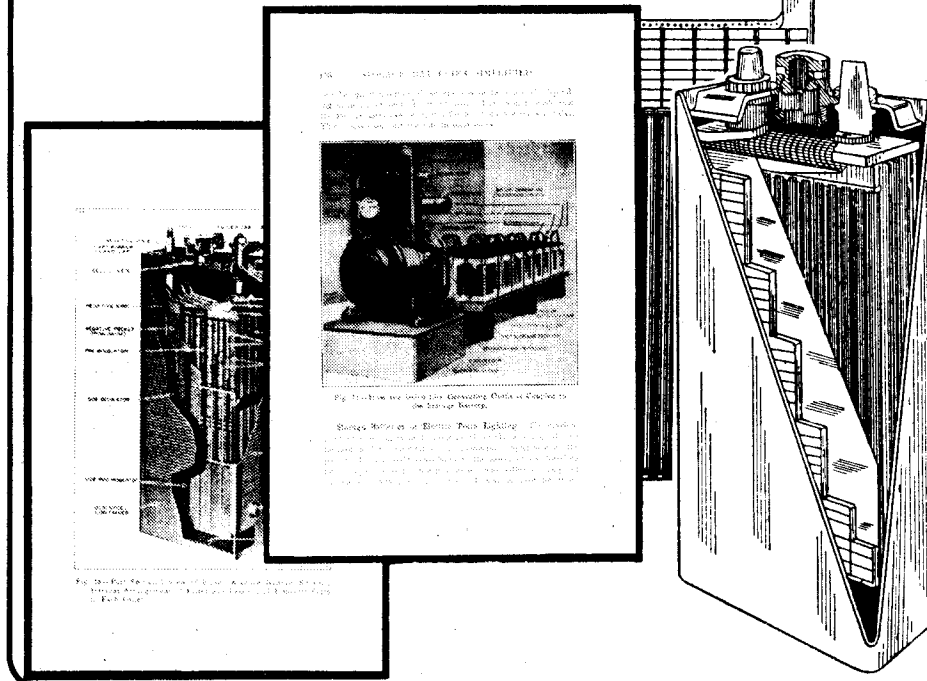
by Victor Page

reprinted by Lindsay Publications

It's old, 1917 to be exact, but it's darned good. Modern storage batteries have plastic cases and plate separators, but in operation, performance, and maintenance batteries really haven't changed too much since this book was first published.

Five chapters cover simple lead plate batteries, Plante plates, pasted plates, Edison batteries, details of plate construction, Gould plates, Exide plates, separator function and more. One whole chapter deals with battery defects, how to make electrolyte, dismantling and repairing batteries. You get full details on how to charge batteries, plus a chapter on their use covering auto starting and lighting, electric autos, railroad use, street cars, mines and even WWI submarines!

I don't think the battery repair instructions will be very useful with modern batteries, and I wouldn't even try to build some of the battery chargers described. Nevertheless, there is so much excellent material here that I give it high marks. Loaded with photographs, drawings and charts. 5 1/2 x 8 1/2 paperback 220 pages Cat. no. 4473 \$8.95



# Lead-Acid Batteries & How They Work!

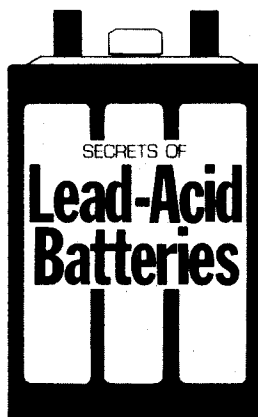
## SECRETS OF LEAD-ACID BATTERIES

To get the most out of lead-acid cells whether you used them in your auto, an electric car, an alternate energy system or other application, you should know what's in this jam-packed booklet.

You'll learn how batteries are rated, built, the different types of charging, how they discharge and why they fail. Learn to quick charge, equalize cells, and even perform a "rejuvenation" treatment that helps some "sick" batteries. Testing of used batteries and electric auto applications are also discussed.

This is much more than basic information but without heavy mathematics and chemistry. Get a copy! 5 1/2 x 8 1/2 booklet 44 pages Cat. no. 86

\$5.00



# Convert DC into 110 Volt 60 Cycle AC!

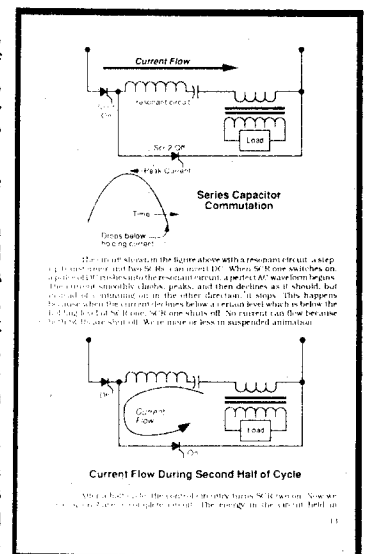
## POWER INVERTER TECHNOLOGY

You can convert 12 volts DC into 120 volts AC 60 cycle with an electronic inverter. If you're intending to invest in an inverter, there's more to know than just its cost and power rating. Do you know what type of design it is? Can it handle high power factors without blowing the transistors or SCRs? Can it lock to the local power grid?

Learn about these problems and much more in this popular jam-packed technical report. Learn about transistors, SCRs, series and parallel commutation, waveform filters, back current flow, and much more. You'll get reports on several commercial inverters, names and addresses of a variety of manufacturers, and sources for free plans should you want to attempt building an inverter.

Other books on the market are either childishly simple or incredibly complex. This is in between, being a translation into layman's terms of the concepts in complex engineering texts. This is not a how-to text. This is an education. You'll learn how to spend your money wisely and get the most from an inverter. Rare info. Reasonably priced! Get a copy.

5 1/2 x 8 1/2 24 pages 2nd edition Cat. no. 83



\$4.00



# Build a Dynamo!

## DYNAMO BUILDING FOR AMATEURS

by A. J. Weed

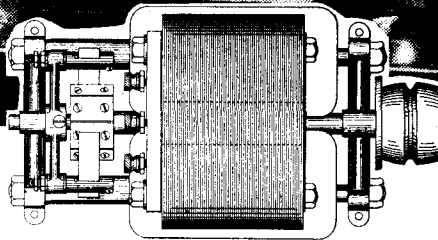
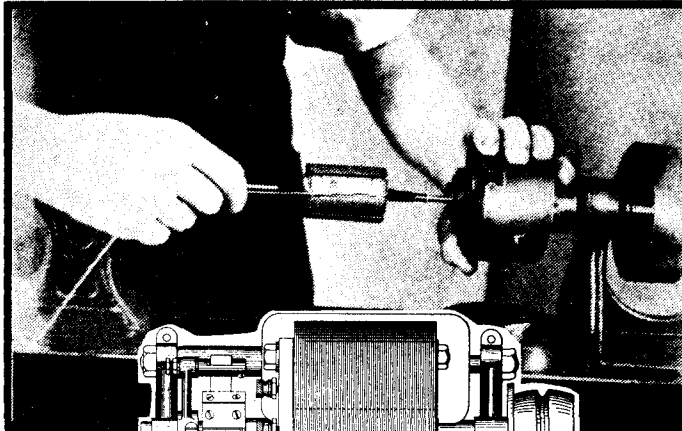
reprinted by Lindsay Publications

"A practical treatise showing the construction and winding of an experimental fifty watt dynamo. Illustrated by sixty-four original engravings showing the actual work in progress."

It's only a fifty-watt dynamo which is not a lot of power, but this book is worth having. Although the author doesn't specify DC output in amps and volts, he does say that when used as a motor, it will generate 1/12 hp when connected to a 5 cell battery which would be 11 volts for a lead-acid battery. I would imagine the output of the dynamo would be about 12 volts as just over 4 amps.

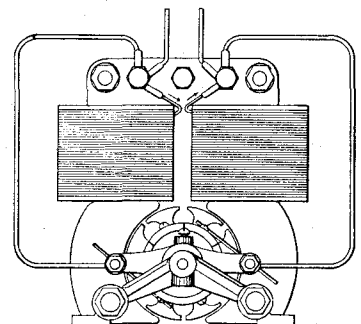
Chapters include: side-bearing rods, field punchings, bearings, commutator, pulley, brush holders, connection board, armature shaft, armature, armature winding, field winding, connecting and starting.

The project is based on field punchings that were available as a kit when the book was released in 1910. I would think that if you're at all



creative, you can find an old motor or generator and salvage field and armature punchings from it. Electrical steel is easy to get these days.

You can use this book as an intro into building generators and/or motors. You will be



shown everything from dimension drawings to winding procedures to turning the commutator in a lathe. Once you've built this, you can jump to larger machines.

This would be a great dynamo to be driven from a small steam engine. Use it to charge a storage battery out in the wilderness. I'm sure you'll have your own unique application. Interesting project. Rare information. By one of the authors of "Gas Engine Construction". Inexpensive. Get a copy! 5 1/2 x 8 1/2 paperback 86 pages photos & drawings Cat. no. 4171

\$5.95

# Old Time Electrical Projects!

## PRACTICAL PROBLEMS IN ELECTRICAL CONSTRUCTION

by Perry & Buck

reprinted by Lindsay Publications

From out of the year 1928 comes this small book of electrical projects. Like so many other books in this catalog, you'll find that projects are somewhat out of date but the information and construction techniques revealed are no longer taught. And although you might not want to exactly duplicate a project, you can certainly use the skills taught.

The projects include a medical coil (induction coil for quack medicine), buzzer, lamp, rheostat, sign flasher, electric toaster, two different electric heaters, soldering iron, crystal radio, 110 to low voltage transformer, Tungar rectifier, Duram one-tube regenerative receiver, and a four chapter series on building an electric motor.

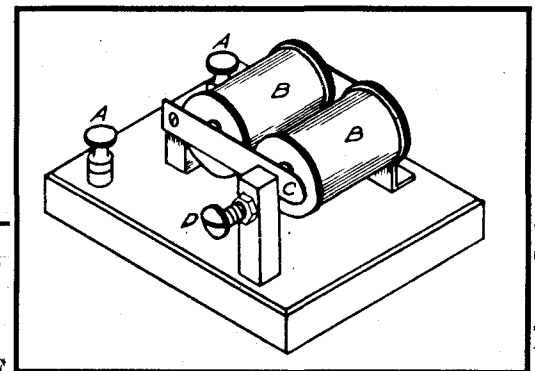
The biggest criticism I have is that the descriptions are too brief. You're expected to have some experience as a mechanic because these are more or less advanced projects. Great info on nichrome wire and its use in building electrical heating devices. An fascinating regen receiver, too. An interesting book with unusual projects. Low-cost. Get a copy. It's worth having.

5 1/2 x 8 1/2 paperback 72 pages

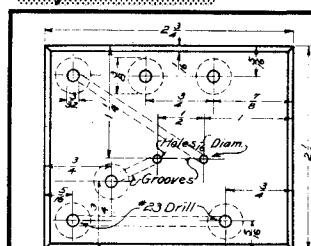
Cat. no. 4767

\$4.50

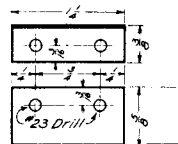
Build a  
toaster,  
soldering  
iron, radio...



ELECTRIC BUZZER

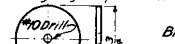


WOOD BASE - 1 Req'd.

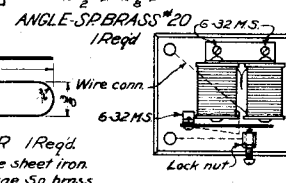


VIBRATOR 1 Req'd.  
Make 1 of 16 gauge sheet iron.  
Make 1 of 20 gauge Sp. brass.

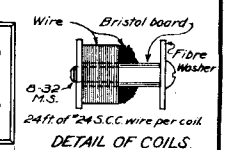
COIL SUPPORT - 1 Req'd.  
1/16 Gauge sheet iron.



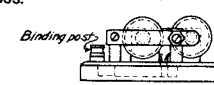
FIBRE WASHER 4 Req'd



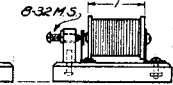
ANGLE-SP. BRASS #20 6-32 M.S. 1 Req'd.



DETAIL OF COILS



Binding post



6-32 M.S.

# Procedures in Experimental

## Procedures in EXPERIMENTAL PHYSICS

by John Stong

reprinted by Lindsay Publications

If you consider yourself an experimenter, an inventor, or a builder of unusual machines and equipment, you must have a copy of this fantastic classic text. No two ways about it.

You'll find wall-to-wall practical how-to and incredible illustrations on almost every one of the more than 600 pages. Chapters include: laboratory glass blowing, laboratory optical work, technique of high vacuum, coating of surfaces by evaporation and sputtering, the use of fused silica, electrometers and electroscopes, geiger counters, vacuum thermopiles and the measurement of radiant energy, optics, photoelectric cells and amplifiers, photography in the lab, heat and high temperature, notes on the materials of research, notes on the construction and design of instruments and apparatus, and molding and casting.

This is some incredible stuff! Learn how to blow glass and make aspirators, distillation condensers, and so on. Learn how to seal copper to glass so that you can imbed electrodes. This could be handy for trying to make light bulbs, vacuum tubes, or x-ray tubes maybe.

Learn how to rough cut lens blanks from large plates of glass and then grind them into lenses on your homebuilt lens grinder. Learn how to make a parabolic telescope mirror using the standard techniques. Learn to make unusual equipment to test the finished mirror. Learn how to grind a Schmidt lens.

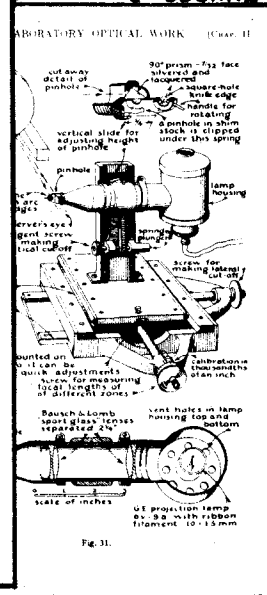
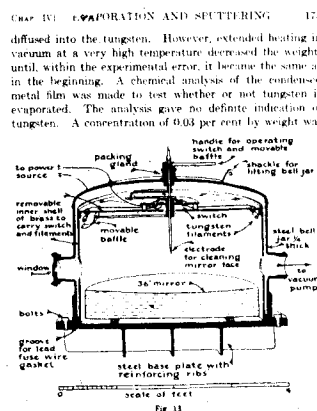
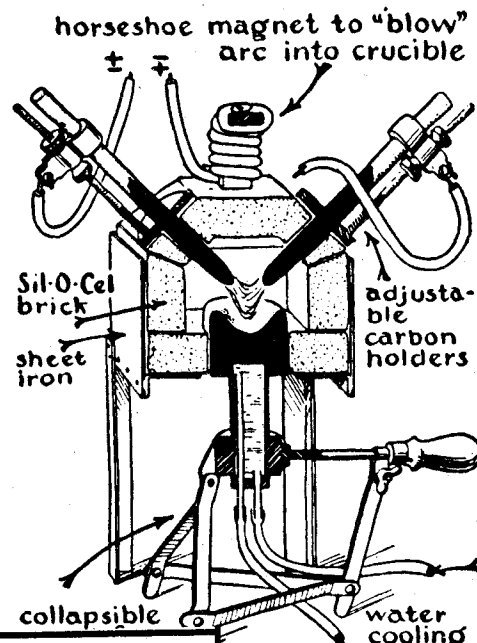
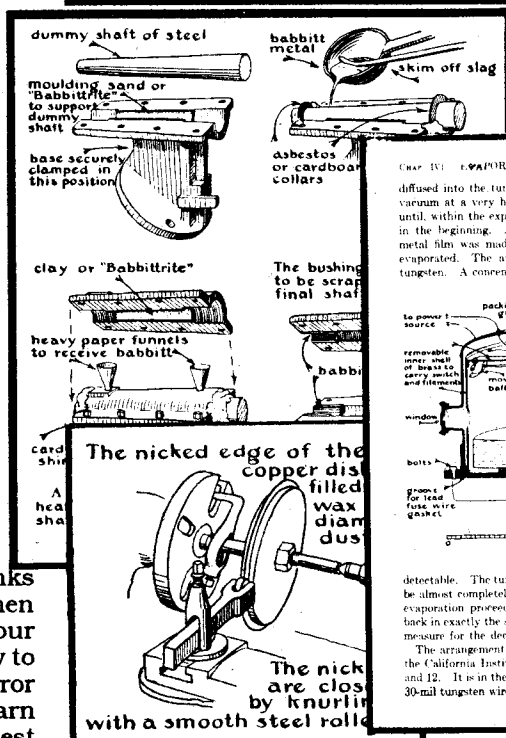
To create high vacuum you'll read about roughing pumps, the vapor pressure of waxes, getters for creating the highest vacuums, and learn to make a variety of diffusion pumps using mercury and oil. See charcoal traps, kinetic vacuum systems, vacuum gauges of all types. Remember, all this comes with construction details.

## Learn how to silver mirrors with a

variety of methods including vacuum sputtering. You'll find extensive details on the evaporation technique for aluminum.

Fused quartz is valuable because

**Incredible  
laboratory  
processes  
revealed!**



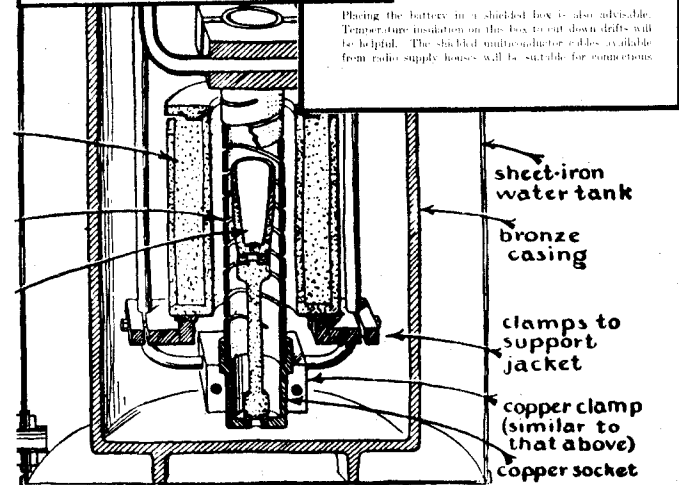
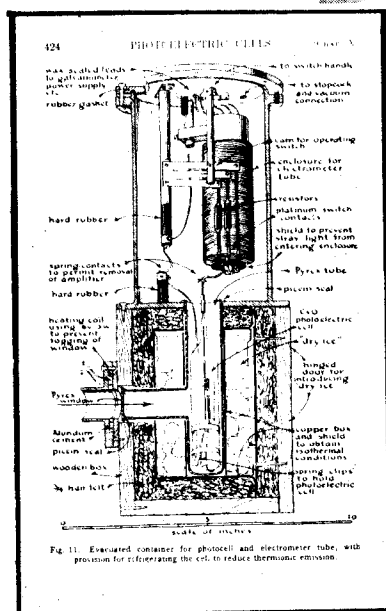
unlike glass it can withstand extreme temperature changes without shattering. Learn how to build micromanipulators and all the rest of the equipment to produce tiny fibers that can be used for suspending the elements of an electrometer, for cross hairs in optical instruments, or for building a balance. The microbalance shown is supposed to be sensitive down to a billionth of a gram per division!

And there's so much more! Build a Compton adjustable quadrant elec-

trometer, a Hoffman electrometer, and others useful for x-ray and cosmic ray work. Build a Geiger counter. You can build your own Geiger-Mueller tube if you master the high-vacuum technique taught earlier. Unfortunately, most of the electronics described is based on vacuum tubes of fifty years ago rather than on transistors.

Build vacuum thermopiles that measure infrared, visible light and ultra-violet so accurately that they can be used to calibrate photographic lightme-

# Physics



## CASE III. LABORATORY OPTICAL WORK

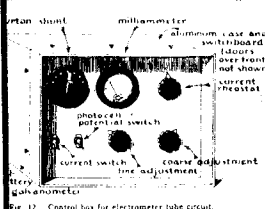
shown in Fig. 27, using a simple pinhole and knife, is suitable for qualitative tests on small mirrors of long radius, a more elaborate setup is usually required.

Parallax appears whenever a Foucault test is made on more than one mirror, such as a test on a parabolic mirror at its focus with an auxiliary flat. (See Fig. 28.) This

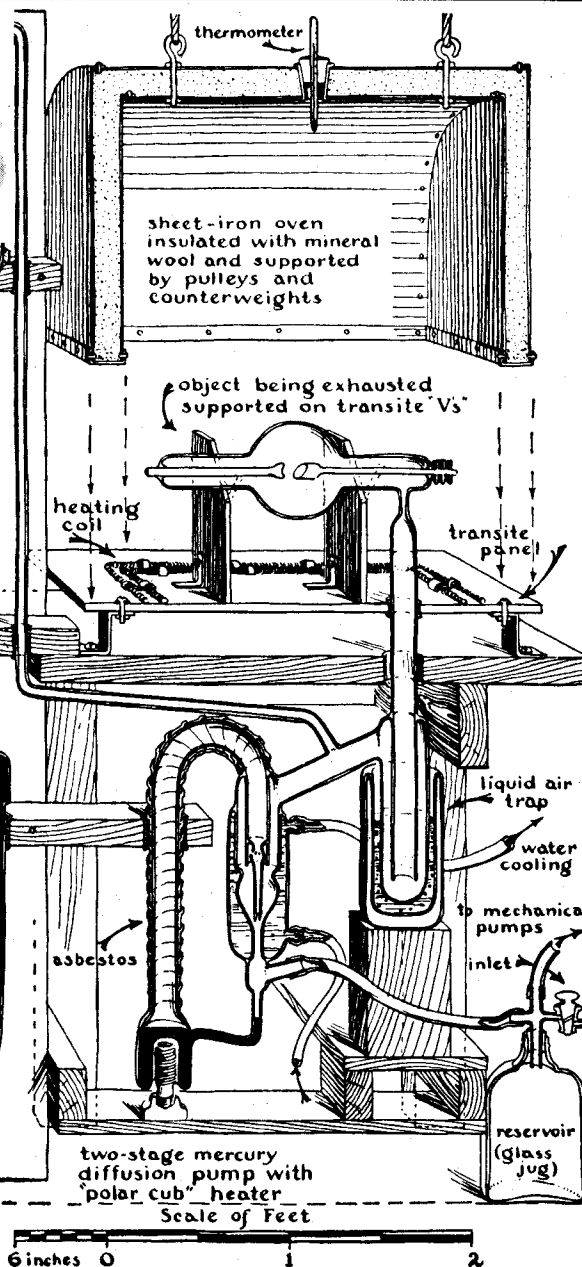
## PROTOLITE TUBE CELLS

Fig. 10 and Fig. 11 is shown a convenient switching unit which provides the possibility of using any one of resistors, or of floating the grid for rate-of-drift tests. This design requires no other support for the grid lead than that furnished by the tube itself. After support is necessary, only the test insulating should be used. Amber or fused quartz is recommended. All insulating surfaces, including the photoelectric tube, must be kept clean and should be handled as little as possible. They may be cleaned by swabbing with cotton with 95 per cent ethyl alcohol.

The various control resistances, the galvanometer, and necessary meters may be mounted in a metal lined box such as that shown in Fig. 12.



Placing the battery in a shielded box is also advisable. Temperature insulation on this box to cut down drifts will be helpful. The shielded multiconductor cables available from radio supply houses will be suitable for connections.



## Wall to wall how-to!

ters and such. You've heard of carbon arc lights, but do you know how to build iron arc lights? Or low pressure mercury arc lights? And others? You can even build a machine to measure the wavelength of colored light.

You'll find details on hydrogen furnaces, crucibles, burners, electric arc furnaces, and even a lab setup for making artificial rubies and sapphires! And there's much more - even down to what we consider the "easy stuff" like using a lathe and sand casting.

You should see by now that this is a fantastic book loaded with construction secrets for unusual equipment. And you should now understand how a book first published in 1938 went through a couple of dozen printings! It's a classic. It's incredible. You should have a copy for reference if nothing else. Highly recommended. Order a copy today.

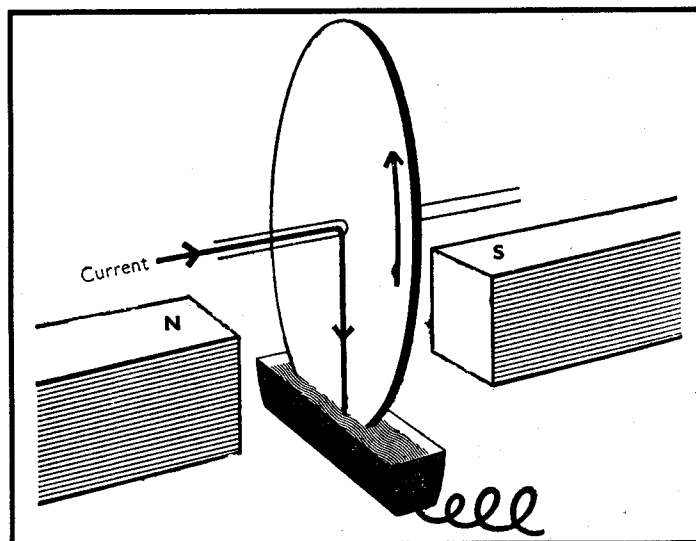
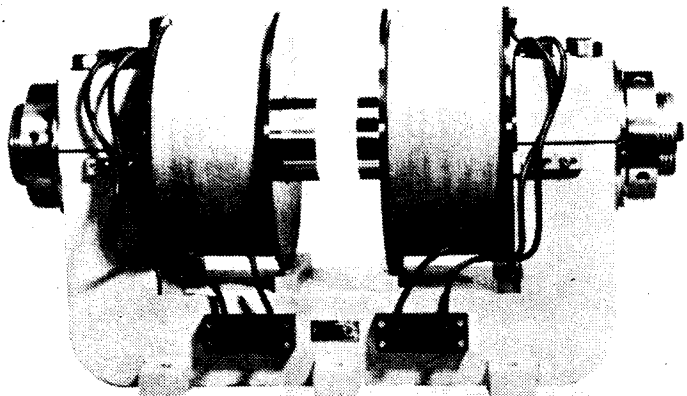
5 1/2 x 8 1/2 sewn paperback 642 pages  
Cat. no.4562 \$23.95

## Something you should know....

This is no ordinary paperback book. "Experimental Physics" is printed on acid-free paper and is sewn like a hardcover book to prevent pages from falling out.

According to pricing formulas, it should sell for much more. If a book like this were released today by a certain major book publisher whose books I've carried from time to time, they would charge from \$45 to \$65 a copy. Maybe even more. At \$23.95 it's a steal. Get a copy.

# Introduction to MAGNETISM



**MAGNETISM — An Introductory Survey**  
by E. W. Lee

The back cover of this book explains it all very well...

"The lodestone was known to the ancient Greeks; the Chinese knew of the compass a thousand years ago; in the 16th century Gilbert described magnetic poles. Professor Lee takes us through the early experiments to the first modern accomplishments of Oersted, Ampere and Faraday. We then learn the principles behind electric motors, dynamos, transformers, permanent magnets, synchrotrons, solenoids, memory banks in computers, betatrons, magnetic supercooling, and other modern applications...."

"The author shows us how magnetism 'works,' with reference to such concepts and principles as lines of force; ferromagnetism; the atomic theory of matter in relation to electromagnetic properties; paramagnetism and diamagnetism; quantitative measurement of magnetic force; domains and domain boundaries; high-permeability alloys, their theoretical basis and uses; magnetic matrices used as computer-age storage devices; ferromagnetism and antiferromagnetism; the use of magnetism in modern scientific research; and problems of the earth's magnetism, including its meaning to Wegener theory of continental drift and solar phenomena."

You get 60 diagrams and sketches and more than 32 pages of photographs. If you want to explore the theory, you can study the mathematics that explains magnetism.

This is one heck of a lot of book for the money. And it's must reading for basement engineers, experimenters, even the guy who's trying to build a magnetic motor or perpetual motion machine. Great background information. Order a copy. 5 1/2 x 8 1/2 paperback 281 pages  
Cat. no. 365 \$6.00

# Great Electricity Text!

## ELECTRICITY 1-7

edited by Harry Mileaf

Find *Electricity 1-7* in this catalog and read what we have to say about it. You'll know in an instant why we offer this companion book. It's every bit as good!

If you need a good solid understanding of electricity, the most basic electrical elements and how they work, then you should have this.

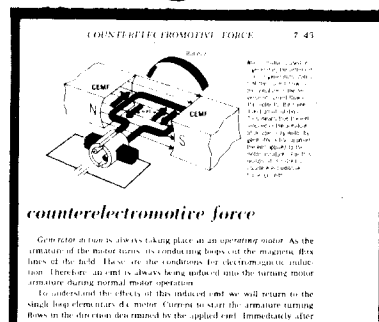
In this single hardcover volume you get the original seven paperback books produced to teach electricity in schools. The volumes cover basic concepts; resistance and Ohm's law; AC components such as capacitors, inductances, and transformers; solving problems in AC circuits such as LC, RC, and LCR arrangements; test equipment; power sources including primary & secondary batteries and generators and alternators; and finally AC & DC motors.

Every chapter is heavily illustrated and text is detailed, easy-to read and understand and thorough. Not all books can claim that!

This is an essential book for every electrician and for

any one who needs a solid footing in electrical theory before advancing to the study of electronics.

Excellent writing. I've offered this book off and on for years. It's great. Highly recom-



## counter-electromotive force

Counter-EMF is always taking place in an operating motor. As the current of the motor turns, its rotating loops cut the magnetic flux lines of the field. These are the conditions for electromotive induction. Therefore, an EMF is always being induced into the rotating motor armature during normal motor operation.

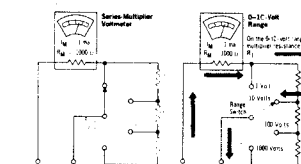
To understand the effects of this induced EMF, we will return to the single loop elementary d.c. motor. Current to start the armature turning flows in the direction determined by the applied EMF. Immediately after

the armature starts turning, the induced EMF starts to oppose the applied EMF.

5-88 VOLTMETERS

## calculating the resistance of multirange multipliers (cont.)

A second method of calculating the values of voltmeter multiplier resistors is the series multiplier arrangement in which the multiplier resistors are connected in series. As shown,  $R_1$  is the multiplier resistor for the 0-10-volt range. For the 0-100-volt range,  $R_2$  is in series with  $R_1$ . Therefore, the value of the multiplier resistance for the 0-100-volt range is equal to  $R_1$  plus  $R_2$ . Similarly, the multiplier resistance for the 0-1000-volt range is equal to  $R_1$  plus  $R_2$  plus  $R_3$ . By now, you probably realize that the series multiplier arrangement is similar to the rheostat arrangement for current meters that you examined earlier.



Now let's calculate the values for a series multiplier voltmeter. We will use the same 1-milliamperes, 1000-ohm meter movement that we used previously. Since this movement indicates 1 volt for a full-scale deflection, no multiplier resistance is needed for the 0-1-volt range. Therefore, your first step is to calculate the multiplier resistance needed for the 0-10-volt range. Again, using Ohm's Law, find the total resistance ( $R_{TOT}$ ) needed to limit meter current ( $I_M$ ) to 1 milliamperes at this range.

$R_{TOT} = E_{MAX} / I_M = 10 \text{ volts} / 0.001 \text{ ampere} = 10,000 \text{ ohms}$   
Therefore, multiplier resistor  $R_1$  for the 0-10-volt range equals 10,000 ohms minus the 1000-ohm meter resistance or 9000 ohms. Thus far, the procedure is the same as in the other method, and the value of the multiplier resistor is the same for the 0-10-volt range.

# Top Quality!

mended. Expensive, but it certainly delivers.

Get a copy for your library. 6x9 hardcover almost 1000 pages — wall-to-wall illustrations

Cat. no. 364 \$42.95

## Just a few of the topics covered:

electrical charges	transformers	power meters
electron theory	capacitors	dry cells
current	capacitive AC circuits	storage batteries
magnetism	power factor	alkaline cells
electric circuits	capacitor types	battery characteristics
resistance	vectors	DC generators
resistors	RL circuits	field windings
power	RC circuits	armature windings
Ohm's law	LC circuits	DC generator construction
series circuits	LRC circuits	AC generators
parallel circuits	tuned circuits	output phases
series-parallel circuits	filter circuits	auto alternators
Thevenin's Theorem	impedance matching	motor-generators
Kirchoff's Laws	meter construction	dynamotors
DC circuit failures	rectifier meters	AC & DC motors
alternating current	meter calibration and accuracy	motor construction
AC waveforms	ammeters	motor classifications
resistance AC circuits	voltmeters	compound motors
inductance	ohmmeters	and on, and on, and on...
inductive DC circuits	the megger	
inductive AC circuits		

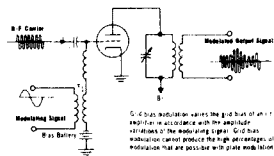


# Incredible Electronics Textbook!

## 6-86 MODULATORS the grid-bias modulator

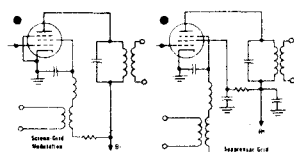
The modulating signal is frequently applied to  $r_f$  amplifiers at the control grid. This is called grid bias or low-level modulation. Effectively, grid bias modulation causes the grid bias of the  $r_f$  amplifier to vary in accordance with variations of the modulating signal.

A basic grid-bias modulator circuit is shown. The modulating signal is coupled by transformer  $T_1$  to the grid circuit of the  $r_f$  amplifier so that it is in series with the grid bias battery. As the modulating signal changes in amplitude, it adds and subtracts from the bias voltage, and thus varies the effective input level of the  $r_f$  signal. The power output of the amplifier therefore follows the amplitude variations of the modulating signal. Because the modulating signal must vary the bias while the stage is conducting at all times, this type of modulation must be operated class A or class AB, so that the modulating signal does not cause the tube to cut off or saturate. Otherwise, part of the modulating signal will be clipped, causing distortion.

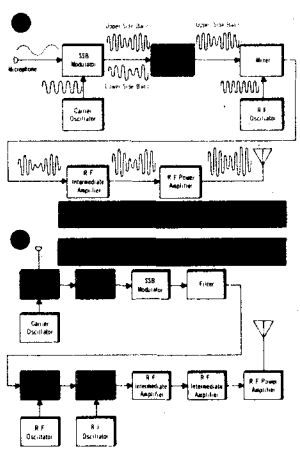


## 6-87 MODULATORS other AM modulators

Although grid bias and plate modulation are the two most widely used methods of producing AM signals, other methods in which the modulating signal is applied to the screen grid, or the cathode, are also used. Typical circuits for these three modulation methods are shown.



## 2-55 AM TRANSMITTERS the single side-band AM transmitter (cont.)



**ELECTRONICS 1-7 2nd Edition**  
edited by Harry Mileaf

I've seen a thousand electronics books from the oldest to the newest, and in my opinion, this one of the very best I've seen. If you're new to electronics or just need a great reference for those areas in which your knowledge is weak, then this book is for you.

What I like is the simply written, yet detailed and complete text and the clear informative illustrations that drive home the lessons being taught. Some books race through complex topics and don't really explain themselves.

*You'll find almost everything!*

DC signals  
AC signals  
modulation  
side bands  
side-band modulation  
AM  
FM  
pulse modulation  
multiplexing  
television  
stereo FM  
navigation signals  
facsimile  
mixing frequencies  
waveshaping  
harmonics  
power supplies  
amplifiers  
modulators  
demodulators  
limiter  
separator  
AFC circuits  
AGC circuits  
counters  
gates  
traps  
feedback circuits  
AM transmitters & rcvrs  
FM transmitters & rcvrs  
UHF rcvrs  
RDF finders  
vacuum tubes  
diodes  
triodes  
triode operation  
load lines  
bias tetrodes  
pentodes  
phototubes

magnetrons  
klystrons  
semiconductor theory  
PN diode  
junction capacitance  
zener diodes  
tunnel diodes  
junction transistors  
gain  
transistor circuits  
bias & stabilization  
oscillation  
frequency response  
thyristors  
field-effect transistors  
FET circuits  
integrated circuits  
rectifiers  
filters  
load resistors  
voltage dividers  
voltage multipliers  
phase splitters  
RF amplifiers  
frequency-multipliers  
LC oscillators  
crystal oscillators  
RC sine-wave oscillators  
relaxation oscillators  
mixers  
converters  
discriminators  
gating circuits  
counters circuits  
limiter circuits  
antennas  
and much, much MUCH more!

Not here! The authors take their time and really teach.

Originally, this book was issued as seven paperbacks, no doubt for schools. Here you get all seven books in a single hardcover volume. Yes, it's expensive, but it's cheaper than buying the individual volumes, and you definitely get your money's worth. The table of contents alone, is eighteen pages long!

This is not a how-to projects book. This is a textbook that teaches the electronic principles behind the equipment you buy and build. You'll learn the complex terms, how components work by themselves and together to build up complex systems.

Again, this one of the very best electronics course I've seen. If you need just one good electronics book then this is it. There are many other good ones on the market, but I'd put my money on this one any day. (I wish I had published it!) Great book. This should be on every electronics buff's reference shelf. Order a copy! 6x9 hardcover almost 1000 pages wall-to-wall illustrations

Cat. no. 363

\$42.95

# Unusual Science Beliefs Attacked...

MARTIN GARDNER

## Fads & Fallacies IN THE NAME OF SCIENCE

THE CURIOUS THEORIES OF MODERN  
PSEUDOSCIENTISTS AND THE STRANGE, AMUSING  
AND ALARMING CULTS THAT SURROUND THEM.  
A STUDY IN HUMAN GULLIBILITY

L. RON HUBBARD    PSI-MILES MACHINES    FLYING SAUCERS  
WILHELM REICH    DR. W. H. BATES    ALFRED KORZYBSKI  
ATLANTIS    SCIENTIFIC SEXUAL THEORIES    BRIDEY MURPHY

## FADS & FALLACIES In the Name of Science by Martin Gardner

If you find "Fringe Science" impossible to believe, you'll find this book right down your alley. Gardner presents his views on "the curious theories of modern pseudoscientists and the strange, amusing and alarming cults that surround them. A study in human gullibility."

Gardner tears apart Symmes and his hollow earth theory, Velikovsky and wandering planets, the multiple moon theories of Horbiger & Bellamy, Charles Fort and the Fortean society, dowsing and other strange methods of finding natural resources, naturopathy, iridagnosis, zone therapy, food fads, orgone sex energy by William Reich, L. Ron Hubbard and dianetics, Korzybski and his General Semantics, Atlantis, flying saucers, and Bridey Murphy.

Gardner shoots them down, and many of them deserve it. But whether you agree with Gardner or not is immaterial. Here, you'll read about many strange ideas for the first time. You can read Gardner's point of view and then do your own research and decide whether you want to agree with him. What I especially like is the appendix that lists many unusual articles and books along with fascinating footnotes.

In other words, Gardner may attack something you really believe in, but in doing so might very well provide you with new directions for your own investigations.

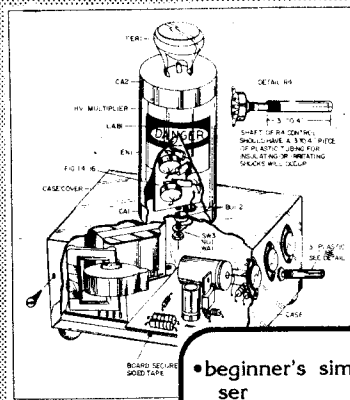
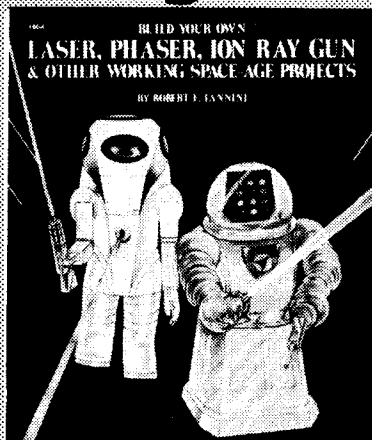
No matter what side of the fence you're on, you'll enjoy this. Wall-to-wall unusual material. A lot of interesting book for the money. You can't afford NOT to have a copy. 5 1/2 x 8 1/2 paperback 363 pages

Cat. no. 737

\$5.95

LINDSAY PUBLICATIONS INC, PO Box 12, Bradley IL 60915-0012 • 815/468-3668

# Strange Electronics Plans!



- beginner's simulated laser
- visible red laser
- pulsed laser rifle
- ruby laser gun
- CO2 laser
- laser light detector
- plain field generator
- phaser shock-wave pistol
- ultrasonic generator
- ultrasonic listening device
- 250 kv Tesla Coil
- ion ray gun
- magnetic field distortion detector
- light-beam communicator
- solid-state Tesla coil
- infrared viewer
- FM voice transmitter
- long-range telephone xmtr
- parabolic microphone
- paralyzing device
- wireless repeater xmtr
- much, much more!

## BUILD YOUR OWN LASER, PHASER, ION RAY GUN. . .

by Robert E. Lannini

Here's one of the most bizarre collections of how-to plans I have ever seen. You'll learn how to build high-power pulsed red ruby laser gun, high-power continuous IR CO2 Laser, ultrasonic field generator, programmable high-power ultrasonic generator, 250,000 volt Tesla coil, magnetic field distortion detector, solid-state Tesla coil, a variety of wireless "bugs", a super-sensitive parabolic microphone, electronic paralyzing device, battery charger and eliminator and much more.

Lannini is an experienced electronics inventor, and holds many patents. He'll give you parts lists, wiring diagrams, assembly diagrams and all you need to get these projects built. I don't think that it's any coincidence that almost every plan has a footnote telling you that kits are available from Information Unlimited, Inc., which is owned by the author and which advertises in the back of the science and mechanics magazines. No doubt, that firm's best selling plans have been reprinted in this single volume.

This book is expensive, but it delivers. I really like this, and I'm sure you will too. Order a copy, even if it has to sit for two years on the shelf before you get ready to build. Excellent book. 8 x 9 1/2 paperback 390 pages.

Cat. No. 346

\$15.95

# Giant Book of Projects!

## Giant Book of EASY-TO-BUILD ELECTRONIC PROJECTS

by the editors of  
Elementary Electronics Magazine

You get circuit diagrams, printed circuit board diagrams where needed, assembly diagrams, and instructions on how to build 84 different, simple, useful and fun circuits.

Some the projects you'll build are a light dimmer, telephone scrambler, power tool torque control, simple voltmeter, solar cell tester, square-wave generator, crystal set, shortwave converter, power supplies, alternator tester, tachometer, photo timer, lightmeter, electronic slot machine, electronic thermometer, Tesla coil, and much more.

A big book loaded with fun projects. A little on the expensive side, but lots of projects for the money. Worth while. Consider it.

7 1/2 x 9 1/2 paperback 346 pages heavily illustrated

Cat. no. 349

\$17.95



# WITCHES & WITCH HUNTING



## THE MALLEUS MALEFICARUM

of Heinrich Kramer and James Sprenger  
translated by Rev Montague Summers

The copy from the back cover says it better than I can:

"For nearly three centuries *Malleus Maleficarum* (The Witches Hammer) was the professional manual for witch hunters. This work by two of the most famous Inquisitors of the age is still a document of the force that era's beliefs. Under a Bull of Pope Innocent VIII, Kramer and Sprenger exposed the heresy of those who did not believe in witches and set forth the proper order of the world with devils, witches, and will of God. Even if you do not believe in witchcraft, the world of 1484 did.

Contemporary cases illustrate methods by which witches attempt to control and subvert the world: How and why women roast their first-born male child: the confession of how to raise a tempest by a washwoman suspended 'hardly clear of the ground' by her thumbs; methods of making a formal pact with the Devil; how witches deprive men of their vital member; and many others. Methods of destroying and curing witchcraft, such as remedies against incubus and succubus devils, are exemplified and weighed by the authors.

Formal rules for initiating a process of justice are set down: how it should be conducted and the method of pronouncing sentence; when to use the trial by the red-hot iron; how the prosecutor should protect himself; how the body is to be shaved and searched for tokens and amulets, including those sewn under the skin....

Unabridged republications of the 1928 edition....

If you believe in this sort of stuff, you'll find it scary, and I DO NOT RECOMMEND that you conduct a witchhunt in your neighborhood.

For the rest of us, this is really interesting reading. Flat out bizarre! This book makes every day of the year Halloween!

Get a copy of this. EVERY man should have a copy this so he can protect his vital member against witches. (Reminds me of one my old girlfriends. But that's another story....) Excellent book. Very unusual. Order a copy. 6 1/2 x 10 paperback 278 pages

Cat. no. 754

\$7.50

# The Strange Books of Charles Fort

## Four Mysterious Books in One!

The Complete Books of  
CHARLES FORT  
by Charles Fort

Strangel! Very strangel! A must book for anyone who researches unexplained phenomena. The dust jacket explains the book better than I can...

"Did beings from outer space visit earth in the past... are the various objects seen in the sky (flying saucers, in modern terminology) evidences of their visits?"

"What is the explanation of falls of frogs, falls of fishes, falls of seashells, which have been recorded from time to time? Are they explainable in terms of selective tomadoes, or are they evidences of a planetary mechanism that we do not know?"

"How can we answer reports of strange animals, disappearances of men from open sight, curious structures in the snow, talents like teleportation and telekinesis?"

"These are the 'damned,' by which the late Charles Fort meant all the wide range of mysteries that are ignored by orthodox science or explained away improperly.

"Charles Fort worked full time for twenty-seven years at the British Museum and the New York Public Library researching scientific journals, old periodicals, newspapers, and manuscript accounts to gather material on phenomena from the borderlands between science and fantasy. His researches appeared in four books, *The Book of the Damned* [1919], *New Lands* [1923], *Lo!* [1931], and *Wild Talents* [1932].

"In these four volumes Fort gathered together, organized and commented on a wild host of phenomena: flying saucers seen in the sky before the invention of aircraft, flying wheels, strange noises in the sky; correlations between volcanic activity and atmospheric phenomena; falls of red snow; falls of frogs, fishes, worms, shells, jellies; finding of 'thunderbolts'; discrepancies in the schedules of comets, sightings on Mars and the moon; infra-Mercurian planets; inexplicable footprints in snowfields; flat earth phenomena, disruptions of gravity; poltergeist phenomena; stig-mata; surviving fossil animals; the Jersey devil; Kaspar Hauser;

*Frogs & Fishes Falling from the sky!*

*Flying Saucers in Victorian days!*

*Teleportation!*

*Telekinesis!*

*Mysterious Planets!*

*Unusual gravity!*

*Poltergeists!*

*Living Fossils!*

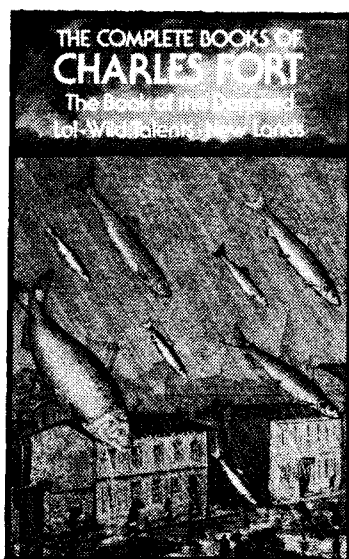
*Much More!*

*Mysteries unexplained by science!*

*27 Years of Research into old newspapers and journals!*

*Four books reprinted in one hardcover volume!*

*Incredible collection of mysteries!*



spontaneous combustion....

"Charles Fort himself never really explained his phenomena... yet through the years his following has grown...."

In this three-inch-thick hardcover book you'll find more details on more strange, unexplained events than you'll find anywhere else. It's an incredible collection that should be part of any library on fringe science. If you specialize in the gray area at the outer edge of science, you must have a copy of this. Recommended.

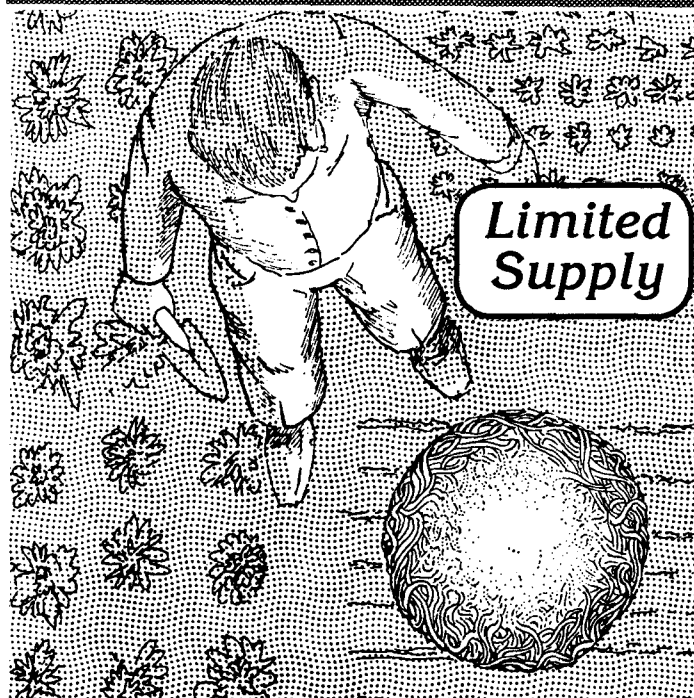
No illustrations, but there is a complete and detailed index.

5 1/2 x 8 1/2 hardcover 1126 pages

Cat. no. 750

\$23.95

# Handbook of Unusual Natural Phenomena



## HANDBOOK OF UNUSUAL NATURAL PHENOMENA

Eyewitness Accounts of Nature's Greatest Mysteries  
by William R Corliss

"This remarkable volume collects more than 500 eyewitness

*Ball Lightning*

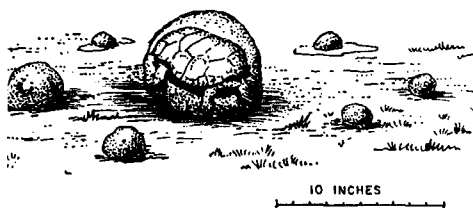
also reported by Fort, but there have been new occurrences reported after Fort's books were published by sources that should be considered more reliable.

You get a well illustrated, interesting, and flat out unusual collection of bizarre natural happenings written by a scientific author of thirty of other books. A lot of material in print these days is garbage, plain fiction,

but this is quality material that investigators, experimenters, and collectors of the bizarre will enjoy. Get a copy. You'll really like it. 6x9 hardcover 423 pages

Cat. no. 751

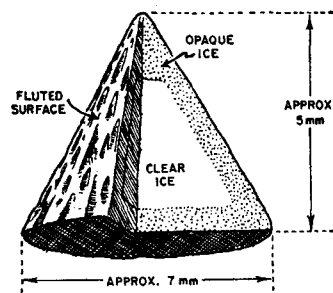
\$9.95



Artist's sketch of the Boovian ice-encased turtle

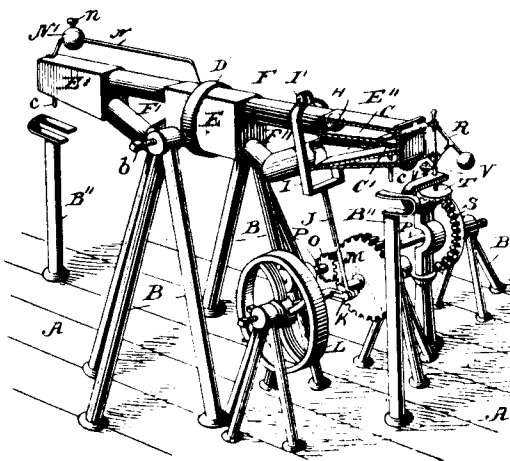
accounts of nature's greatest mysteries, all of them odd and fascinating, all of them documented in major scientific journals, and none of them fully understood. Read about such strange phenomena as cloudless rain, colored snow, humming deserts, multiple rainbows, rocket lightning, phosphorescent wheels, multicolored mock suns, exploding hail and much more! Everyone will be fascinated by these bizarre occurrences in our everyday world, proof that science has not yet been able to explain everything around us."

This book takes over where Charles Fort's books left off. Some of the unusual reports such as live fish falling from the sky are



Detailed structure of a conical hailstone

# FIFTY Perpetual Motion Mechanisms

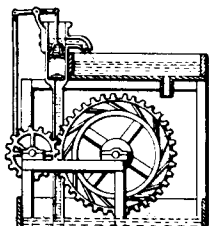


## FIFTY PERPETUAL MOTION MECHANISMS

by Fred Dieterich  
reprinted by Lindsay Publications

The author was a patent attorney at the turn of the century. I suppose that so many people considered themselves inventors and presented him with so many headaches that he wrote a book entitled "The Inventors Universal Educator" covering the process of securing a patent. It sold for many years starting 1899.

One short section of his book covers perpetual motion inventions which are unpatentable. Dieterich, who was outraged by claims of perpetual motion, presents drawings of 50 different mechanisms. No doubt, you've already seen a number of these, but others are unique, and all are interesting.



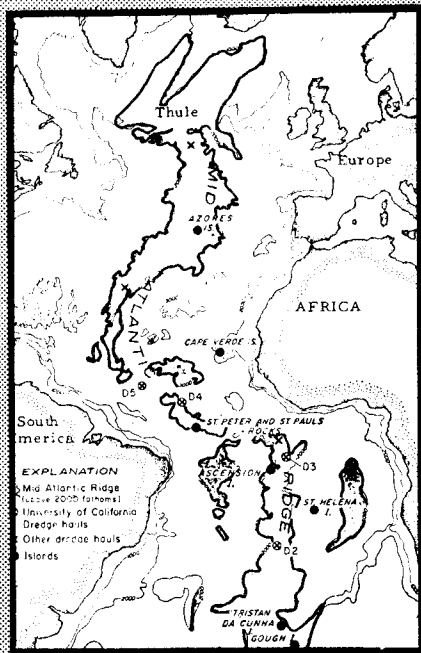
You'll see the Marquis of Worcester wheel, the Horace Wickham machine, the 1868 device of Dr. Drasch of Austria, an electric device, the self-moving railway, the Orfyreus 1720 wheel, a complicated water screw, and others.

If you're into PM, you'll want to add this to your collection. Maybe you're trying to build a machine and want to avoid previous failures. Or you're a skeptic and want a good laugh. Whatever, the material is interesting and the price is low. Get a copy. You'll like it. 8 1/2 x 5 1/2 booklet 22 pages  
Cat. no. 898

\$3.75

# MYSTERIES!

- Mind Control
- Atlantis
- UFO's
- Tesla
- Suppressed Inventions
- much more



## ENIGMA FANTASTIQUE

by W. Gordon Allen  
copyrighted by Tesla Radiation Inc.

"Why was only a small portion of Dr. Tesla's work permitted to be used by world industry? What were the incredible SECRETS of mind control demonstrated by the life of Nikola Tesla? What do the mind-control secrets of Dr. Tesla and Dr. Rudolf Steiner have in common?..."

This is another of those strange "revealing" books that declare they have all the answers to why certain inventions, ideas and developments are being "suppressed." You can laugh at it, or take it seriously. Your choice.

Whatever your point of view, you should find it interesting. You get descriptions of Tesla's ideas of power transfer, Dr. Rudolf Steiner and his strange ideas, Atlantis, UFO's, and a bunch of other things.

Under no circumstances do I endorse any of this. I offer it only as entertainment, science-fiction, if you like. Although that's my opinion, you may be convinced that it's fact. You decide.

Spiral bound, 197 page typewritten book with poorly reproduced photos. 8 1/2 x 11

Cat. No. 724

\$10.00

# Strange New Explanation of the Universe!

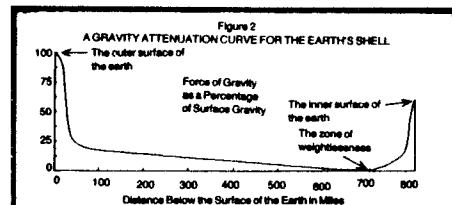
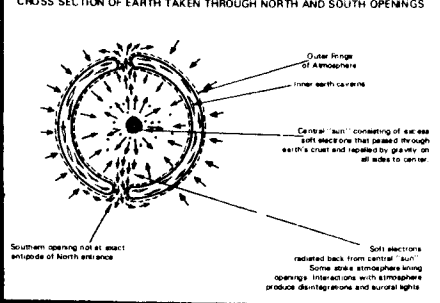


Figure 2  
A GRAVITY ATTENUATION CURVE FOR THE EARTH'S SHELL

Gravity drops off rapidly in the first 25 miles below the earth's surface due to the inward generating ability of gravity inducing reduction. From that point downward the rate of decrease becomes progressively less until it drops to zero 700 miles below the outer surface. The force of gravity begins rising again proceeding toward the inner surface which is at the 800 mile depth. At the inner surface, the force of gravity reaches a value which is somewhat less than that on the outer surface of the earth.

Figure 3  
CROSS SECTION OF EARTH TAKEN THROUGH NORTH AND SOUTH OPENINGS



## THE AWESOME LIFE FORCE

by Joseph H. Cater

The author is one of those people who claims that the government, the pentagon, NASA, the science community and others are suppressing knowledge and telling us lies, and that he alone has solved all of the mysteries. Although I find that hard to believe, some of his arguments are interesting.

Chapters include: undeniable discrepancies in conventional science, cause of tides, the hollow condition of the earth, closer look at the properties of light, popular misconceptions of atomic and particle physics, practical free energy devices, the Searl effect and related UFO phenomena, research of Von Reichenback, pyramid of life, resolving the mystery of teleportation, materializations from higher realms, origin and transference of disease, and much more.

The author claims that there are holes at the north and south pole that go to the center of the earth. They've been seen and photographed by astronauts but are suppressed by NASA because they can't be explained.

If you believe in this sort of thing, you'll love this book. If you're trained in the sciences, you'll find many of his arguments border on the ridiculous. But regardless of what side of the fence you're on, you WILL find this interesting reading. It's as far out as any book I've seen yet. 5 1/2 x 8 1/2 paperback 475 + pages

Cat.no. 679

\$14.95



## THE PERPETUAL MOTION MYSTERY

by R. A. Ford

Perpetual motion. Some people laugh at it. Others take it very seriously. Here's a serious look at these unusual systems.

First, you get a reprint of the small and now-rare "Perpetual Motion Handbook Through Entropy Reversal" published in 1967 by I. R. Barrows. Then, you get his first (and last) four "Perpetual Motion Journals" published about the same time. Each is small but filled with letters patents, ideas, illustrations, and thought-provoking suggestions.

The author jumps into a discussion of why perpetual motion might be possible, pointing out unusual theories from the past, and pointing out possible defects in current theories.

Covered are kinetic gravitational theories of the 18th century, DesCarte's Vortex Theory, LeSage's Impact Theory of Gravity, and Brush's Wave Theory. Attempts at experimental confirmation of these theories are then provided.

Natural gravitational anomalies such as solar eclipse, bulging river surfaces, bore at sea, unusual rock movements, slowly falling hail are revealed. You'll learn about Robert Cook's inertial propulsion device and its relation to Newton's Law.

The last large section covers the Orffyreus wheel built in Germany centuries ago. The author believes it might have been the only real perpetual motion machine yet invented, the secret of which was lost. You'll learn about the inventor's life, his education, his wheels, his

# Perpetual Motion Mystery

## A Serious Inquiry into PM!

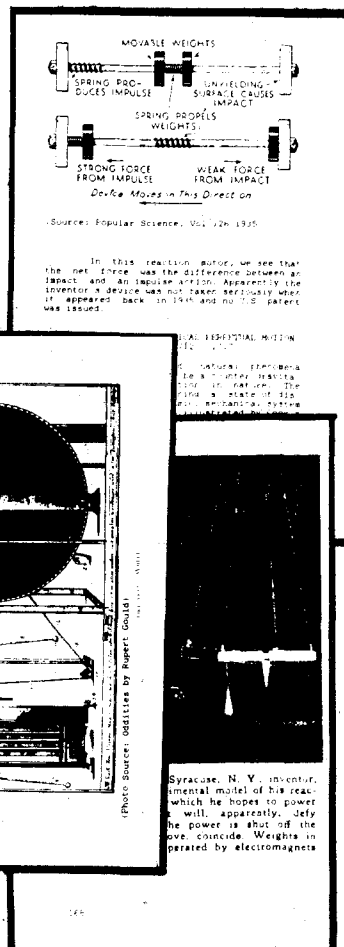
successes and failures, the tests, and more.

Last, the author, based on the material presented in earlier chapters suggests how a perpetual motion machine might be built.

You get a collection of strange, rarely seen stories and phenomena that might hold the key to perpetual motion, if, indeed, such a machine can be built.

This is not a construction manual, nor is it extremely complex. It's a notebook gathered over the years, one that should be interesting to believers and non-believers.

Consider it. You won't find anything quite like it on the market. Different. Unusual. Interesting reading. Get a copy. 5 1/2 x 8 1/2 paperback 196 pages Cat. no. 4538 \$9.95



# PERPETUAL MOTION HISTORY

PERPETUAL MOTION  
The History of an Obsession  
by Arthur Ord-Hume

People for centuries have attempted to build a machine that will produce more energy than it consumes. And they've all failed.

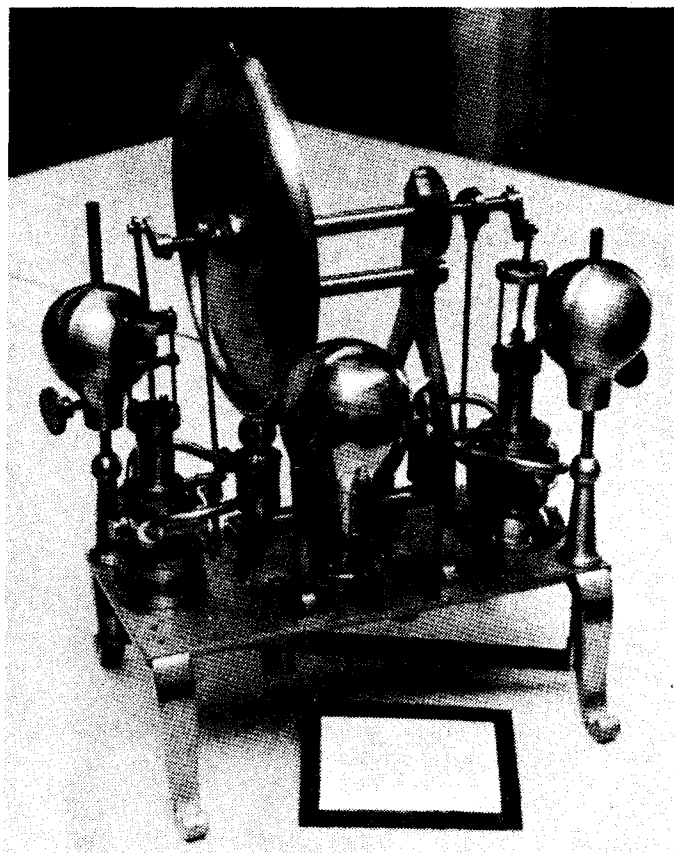
If you think you've invented a new type of perpetual motion machine, you had better read this book. Chances are, it has already been attempted.

For the rest of us, this book is interesting reading. There are some machines, that don't actually produce energy, but they run seemingly forever on a small amount of energy, like Singer's perpetual chime that was set up in 1840 and is still operating!

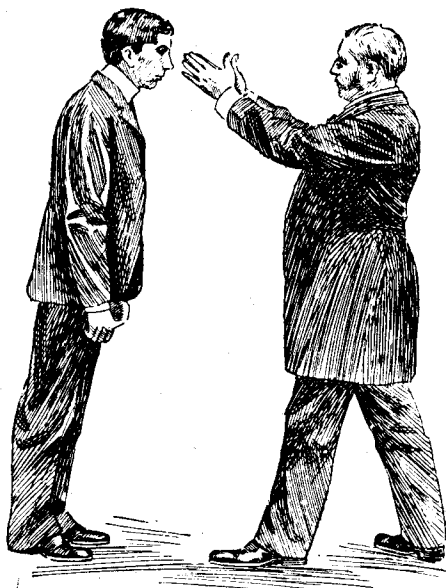
Learn about medieval ma-

chines, self-moving wheels, lodestones, electromagnetism, steam, capillary attraction, spongewheels, Cox's machine, the Redheffer device, the Keely motor, odd ideas about vaporization and liquification, the barring of perpetual motion devices from the patent office (although the magnet motor sneaked in), rolling ball clocks, and more. You get lots of illustrations, and an excellent list of references for further reading.

Interesting book! Well written and researched. Excellently done. If nothing else, put one in your reference library. It's not all that expensive. 5 1/2 x 8 1/2 paperback 235 pages. Cat. no. 510 \$5.95



# Learn to Hypnotize! Secrets!



## Hypnotism & Hypnotic Suggestion edited by Neal & Clark

Enjoy this "scientific treatise on the uses and possibilities of hypnotism, suggestion, and allied phenomena by thirty authors."

Hypnotism in 1900 was an even hotter topic than it is now. Everyone was apparently trying to hypnotize everyone else. And this is one of the books that taught them how.

Just like it says, you get thirty different chapters covering things like hypnotism by direct suggestion, how to control people in their waking state, suggestion in trance phenomena, how to hypnotize difficult subjects, personal magnetism, history of hypnotism, how to hypnotize and awaken a subject, and much more.

Does it work? If you intend to persuade your mother-in-law to jump off a bridge, probably not. And I haven't had much luck using hypnotism to housebreak my dog. But no doubt the methods written about were actually used successfully by the authors.

I think it's interesting reading. If you want to try it and start a nightclub act, you're on your own.

Some of it is boring, other parts fascinating. (Sounds like most books, doesn't it?)

If unusual books are your thing, consider this carefully. This is one of more offbeat, yet quality, books I've come across in recent months. Maybe you, too, can become Mandrake the Magician! Get a copy. 5 1/2 x 8 1/2 paperback 260 pages

Cat. no. 4627

\$8.95

## ORIENTAL EMBALMING FLUID.



# Embalm Corpses!

## PRESERVING THE DEAD The Art & Science of Embalming reprinted by Lindsay Publications

Just imagine! You're at a cocktail party among a large group of friends when the conversation turns to hobbies. Imagine how envious they'll be when you tell them you're an amateur embalmer! Imagine their admiration when you drift up the bartender and order another formaldehyde on the rocks!

**"We attempt to keep all books in stock at all times. But sometimes it doesn't work out that way!"** *Lindsay*

We attempt to keep all books on hand at all times. But it doesn't always work out that way.

Sometimes a magazine article or mention on a radio talk-show produces a deluge of orders, or a large book store wants hundreds of copies. We can run out unexpectedly.

Some of the books you see offered are published by small publishers literally operating out of their garages. All too often when I list a book in my catalog, it produces more sales than that small publisher has ever seen. He runs out. You and I wait for him to print more copies. It happens — too often.

When that happens, we put you on the

Seriously, this might not have practical application, but you cannot deny that it's unusual! Maybe after reading this you'll change your mind about eventually dying...

What you get are the best parts of two books published in 1900 and 1908 for undertakers-to-be. From one book we kept the fascinating, but all-too-brief history of embalming from the ancient Egyptians to the present. We kept the practical details of actually embalming a body, from removing the blood to special techniques.

In the last section you get a fascinating, and sometimes amusing collection of tips from practicing undertakers who will tell you how to line the carriages up in front of the deceased's home for the funeral, why you should wear clean clothes, and why you shouldn't drink whiskey before the funeral.

Many pages of human anatomy have been left out.

Yes, there are pictures but they're not all that grotesque. If you're expecting to see mangled corpses, forget it. Not here.

You get details on embalming using various major arteries, how to inject cavities without showing mutilation, needle embalming, and much more. You also get tips on handling cases where death was caused by diphtheria, typhus, anthrax, bubonic plague, drowning, electrocution and more.

If you find this revolting, order a copy for your Aunt Aggie whom you've been antagonizing for years. Give her this book the next time you have to have her over for dinner, and shock her out of her mind!

Whatever your interest, whatever your angle, get a copy of this unusual book. This is not a book you'll find at the local newstand. It's so different, there's no question you'll find something of interest that makes it worth the price. 5 1/2 x 8 1/2 paperback about 224 pages

Cat. no. 4244

\$9.95

backorder list, and send the book just as soon as it arrives. You always have the option to cancel the backorder, or do whatever you want to settle the account if you choose not to wait. Just let us know.

And remember, unusual books have a way of going out of print (taken off the market) when you least expect it. It has happened dozens and dozens of times already. So order the books you MUST have NOW! That's not advertising hype. That's simple fact. Don't call me up crying to ask if I have just one more copy somewhere. I'm tired of hearing grown men cry! You've been warned.

# How to Order

- Print your name and address *clearly* on the order blank or piece of paper you're using.
- List the books. Use both book number and part of the title for accuracy. We need book numbers for faster processing of your order.
- Total the prices. Illinois residents add 6 1/4% sales tax.
- Add a shipping charge of 75¢ for the first book and 25¢ for each additional book. Coupons or refunds will be given for excess amounts.
- Send it to Lindsay Publications Inc, PO Box 12, Bradley IL 60915-0012

## GUARANTEE

All books are guaranteed. If you find a book that doesn't meet your expectation, return it immediately for credit or refund. I don't expect you to keep and pay for a book you don't like. You don't have to explain, but if you do, it will help us improve the selection we offer.

We don't offer an approval service. Don't order 8 books and expect to return 7. Order books you really want. You'll find as tens of thousands of other people have, that the books we offer are so good, we don't really need to offer a guarantee. But we do anyway. You'll be satisfied. We guarantee it. There's no other way to do business.

If you're returning a book, pack it well. Credit will be issued for the price of the book (and sales tax, if any). We do not issue refunds on shipping and handling charges.

## IMPORTANT NOTICE!

I do not endorse the methods or plans offered here. Some are dangerous, and I cannot be responsible for accidents. I cannot vouch for the accuracy or safety of the methods in these publications. This is a bookstore, not a school. Be very careful. Use good judgement in your work.

# I was fed-up! Disgusted!

The catalog you hold is the result of my personal frustration with being unable to find the books I wanted in bookstores and libraries. No one seemed interested in carrying the unusual books I wanted.

If you want the job done right, you have to do it yourself. I went out and found the books I wanted. The catalog you hold is the result of years of searching.

In it you'll find great reprints of many rare old books. I found that quite often books published 80 years ago contain better how-to information than modern books.

Admittedly, some of the reprints are priced higher than I like to see, but printing small quantities of unusual books is expensive. Even so, a reprint usually costs much less than the original volume — if you're lucky enough to find one.

I don't reprint nor offer second rate books. There's never time or money enough to offer all the good books that turn up, so why fool around with second-rate material?

Besides, I would never offer you something that I wouldn't buy myself and be happy with.

In essence, you're digging through my private collection of old books, with a few of the best new books thrown in.

The books you order are covered by a money-back guarantee. But I don't really need to offer one. People are satisfied. Truth is everyday we get unsolicited comments like "great books" and "never disappointed". Books rarely, if ever, come back for refund or credit.

And you'll probably be surprised by the fast service we offer. Oh, sometimes we get hit with a deluge of orders or a truckload of books doesn't arrive on time and we run out. Things might slow down for a short time. But that's the



exception, not the rule.

This catalog is the result of my frustration. I call the shots now. I make sure the job gets done right. I offer you great books, fair prices, as fast a service as costs will allow, and above all, fair dealing. You're dealing with me, a certified book freak, not a huge corporation. You can order in confidence.

So, welcome to one of the best book catalogs you'll ever see.

*Lindsay*

PS: Don't ever hesitate to call or write if you think something might have gone wrong with your order. Problems won't get fixed until we know about them...

## PRICES AND AVAILABILITY

Prices and availability are subject to change without notice! Your packing slip will show the current price regardless of what might be in the catalog. Prices often change between the time the catalog goes to press and the time you order. Call if you need to know before ordering.

## CATALOGS

Catalogs are issued several times each year. If your catalog is more than year old, write for a current copy before ordering. A new copy will be sent with an order at no charge if so requested.

## CODS

UPS COD is available at extra cost above and beyond normal shipping and handling. Overnight delivery is available at great cost. Second day air is also available and is less expensive. Charges are based on weight.

## TELEPHONE ORDERS

Use 815/468-3668 to place telephone orders during normal business hours (shortened hours during summer). Have your list of titles, book numbers ready, along with a charge card. Coupon credits from previous orders cannot be applied via the telephone.

## CUSTOMER SERVICE

Calls concerning problems should be placed during normal business hours. Although they are not required to do so, packing crews working after hours often take phone orders as courtesy to customers. They are not qualified nor authorized to provide customer service. Please call earlier in the day.

## BACKORDERS

Because most backorders are short term, we will charge you for your entire order even though a book may be out of stock. The book will be shipped at no additional charge when it arrives. This policy applies to all forms of payment: check, money orders, COD's and charge cards.

For instance, you order six books, five of which are shipped COD immediately, and one is backordered. Your COD charge is for all six books. The backordered book will be shipped at no additional expense to you as soon as available.

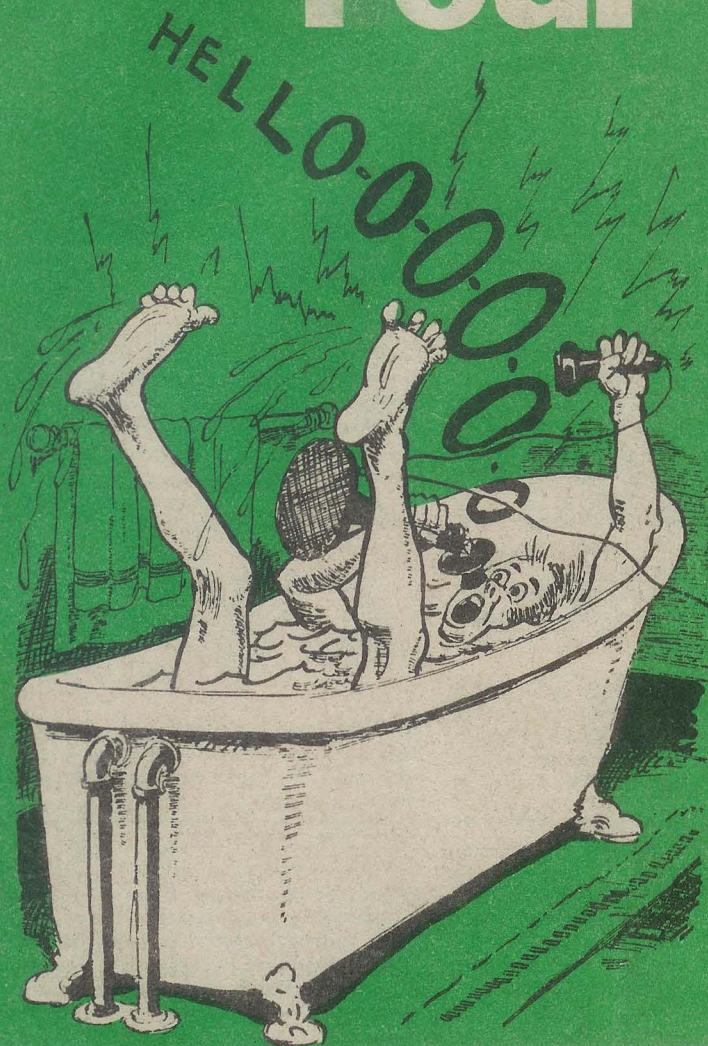
## GIFT CERTIFICATES

Gift certificates are available in any amount. If you want a new catalog, request one at no charge.



# Don't Phone in Your Order...

## While You Are in the Tub...



It's not that we don't want to accept your order, we just want you to be alive to read the books when they arrive!

You can phone in your order if you need overnight service, but the vast majority of orders received through the mail are processed and shipped the same day they arrive. Next day air, second day air, and priority mail shipment are available at extra cost should you need a book overnight.

If you do insist ordering books while you're in the tub, order enough to keep you reading for an eternity. You'll need something to do out at the cemetery!

**Lindsay Publications Inc**

PO Box 12, Bradley IL 60915-0012

**502**

BULK RATE  
U.S. Postage  
PAID  
Elmhurst IL  
Permit No. 84

Address  
Correction  
Requested

WHEN CORRECTING ADDRESS, please do not obliterate old zipcode.